NOKIA 9290 Communicator

User Guide

NOKIA

CONNECTING PEOPLE

Nokia 9290 Communicator User Guide

Nokia 9290 Communicator
User Guide

What information is needed?	Numbers	Where is the number?
My number		Wireless service provider
Voice mail number		Wireless service provider
Wireless provider's number		Wireless service provider
Provider's customer care		Wireless service provider
Model number		Label on back of phone (under battery)
Phone type		Back of title page
International Mobile Equipment Identification (IMEI)		Label on back of phone (under battery). See **'Facts about your communicator' on page 41**

Settings checklist

	Information you need	Where to obtain it	Where it goes	Record it here
WWW	WWW Internet access point: name, modem phone number, user name, and password	Your Internet Service Provider (ISP)	See 'Setting up your Internet access point' on page 150. Internet access, connection details dialog	
	Data call type information: whether high speed call	Your GSM service provider	Internet access, connection details dialog, Advanced settings, *Data Call* page	
	Data call type information: remote modem type	Your Internet Service Provider	as above	
WAP	**Information you need**	**Where to obtain it**	**Where it goes**	**Record it here**
	WAP Internet access point: name, modem phone number, user name, password	Your WAP Service provider	See 'Set up WAP connections' on page 169. Internet access, connection settings dialog	WAP Internet access point: name, modem phone number, user name, password
	Data call type information: whether high speed call	Your GSM Service provider	Internet access, connection details dialog, Advanced settings, *Data Call* page	
	Data call type information: remote modem type	Your WAP Service provider	**as above**	
	WAP Internet access point: gateway IP address	Your WAP service provider	WAP access point settings dialog	

Settings checklist

	Information you need	Where to obtain it	Where it goes	Record it here
Mail	Mail address of your remote mailbox	If you have an existing mail account, this address is your mail address.	See The *General* page of Mail settings dialog: *Your mail address*	
	User name and password of your remote mailbox	Your mailbox service provider	*User name* and *Password*	
	IAP to connect to your mailbox	Your mailbox service provider	Use Internet access point:	
	The protocol of your remote mailbox	Your mailbox service provider	The *Servers* page: *Mailbox type*	POP3 or IMAP4
	IP (Internet Protocol) address or host name of the server that sends your mail	Your mailbox service provider	Outgoing mail server	
	IP address or host name of the server that receives your mail	Your mailbox service provider	Incoming mail server	
SMS	**Information you need**	**Where to obtain it**	**Where it goes**	**Record it here**
	Service center number	GSM service provider	See 'Short Message Service' on page 201. The *Settings* page of the SMS settings dialog: *Service center in use*	

The wireless phone described in this guide is approved for use in GSM 1900 networks.

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Includes RSA BSAFE cryptographic or security protocol software from RSA Security.

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The term "IC:" before the certification/registration number only signifies that Industry Canada technical specifications were met.

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FOR YOUR SAFETY Read these simple guidelines. Breaking the rules may be dangerous or illegal. Further detailed information is given in this User guide.

ROAD SAFETY COMES FIRST Do not use the communicator while driving; park the vehicle first.

INTERFERENCE All wireless phones may get interference which could affect performance.

SWITCH OFF IN HOSPITALS Follow any regulations or rules. Switch off the phone near medical equipment.

SWITCH OFF IN AIRCRAFT Wireless phones can cause interference.

SWITCH OFF WHEN REFUELING Do not use the phone at a refueling point. Do not use near fuel or chemicals.

SWITCH OFF NEAR BLASTING Do not use the phone where blasting is in progress. Observe restrictions, and follow any regulations or rules.

USE SENSIBLY Use only in the normal position (to ear). Do not touch the antenna unnecessarily.

USE QUALIFIED SERVICE Only qualified service personnel may install or repair equipment.

ACCESSORIES AND BATTERIES Use only approved accessories and batteries. Do not connect incompatible products.

MAKING CALLS VIA THE PHONE Close the cover and make sure the phone is switched on and in service. Enter the phone number, including the area code, then press . To end a call press . To answer a call press .

EMERGENCY CALLS Close the device cover. Make sure the phone is switched is on and in service. Hold for several seconds, to clear the display. Enter the emergency number, then press . Give your location. Do not end the call until told to do so.

MAKE BACKUP COPIES Remember to make backup copies of all important data.

CONNECTING TO OTHER DEVICES When connecting to any other device, read its user's guide for detailed safety instructions. Do not connect incompatible products.

INFRARED PRECAUTIONS Do not point the IR beam at anyone's eye or allow it to interfere with other IR devices.

DISCLAMER

It is possible that you may not be able to activate your phone on all wireless systems. Please see your service provider for details.

USING THIS GUIDE

A number of features included in this guide are called System Services. They are special services provided by wireless service providers. Before you can take advantage of any of these System Services, you must subscribe to the service(s) from your home service provider and obtain instructions for their use.

CONTACTING NOKIA

To help Nokia promptly answer your questions, please have your phone's model number, IMEI number, and your local zip code ready when you call Customer Service. The IMEI and model number are on the back of your phone under the battery. If you're calling about an accessory, please have it available for reference.

Nokia Customer Care Center

7725 Woodland Center Boulevard
Suite 150
Tampa, FL 33614
Tel: 1-800-4MY-9290
Fax: 1-813-249-9619
For the TTY/TDD users only:
1-800-24-NOKIA (1-800-246-6542)

Customer Interaction Centre, Canada

Nokia Products Ltd.
601 Westney Rd. South
Ajax, Ontario L1S 4N7
Tel: 1-888-22-NOKIA (1-888-226-6542)

1. Getting started

Congratulations on purchasing the Nokia 9290 Communicator. It is a complete communications tool: it is a wireless phone, messaging device, and a palmtop organizer in one package.

When you open your sales package, check that it contains the following:

- The Nokia 9290 Communicator
- 16 MB Memory card
- The Nokia 9290 Communicator User Guide, the Getting Started card (fold-out poster), and the Add-on applications guide
- High Power Battery BLL-3
- ACP-12U Charger
- RS232 DLR-2L Adapter Cable
- CD-ROM with PC connectivity software
- Headset

The Nokia 9290 Communicator consists of two parts: the phone and the communicator interface. The phone is on the device cover and the communicator interface is inside the cover, as shown in Figure 1.

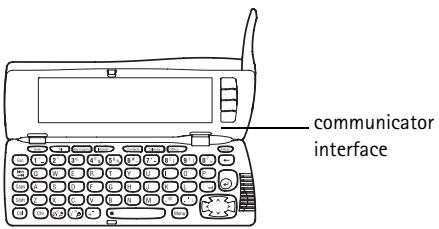

Figure 1

Both these parts use the same information from the memory of the communicator - they are not separate devices. For example, the phone uses the names and phone numbers stored in the Contacts directory of the communicator interface, and the communicator interface uses the phone for voice and data communications, for example, when sending and receiving faxes and connecting to the Internet.

Tip: The communicator interface has no power on/off button - it switches on when you open the cover and switches off when you close the cover.

The communicator interface contains many organizer and communications applications. The large keyboard, command buttons, and display make using the applications easy.

The phone is designed for making and answering calls quickly. The communicator looks and operates like other Nokia wireless phones, except the earpiece and microphone are at the rear of the device. The phone is switched on and off by pressing the button on the cover.

IMPORTANT: Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

Support options

To get the most from your Communicator, Nokia's support options are designed to be flexible and comprehensive. You can find online learning, developer's forums, and customer care. It is recommended that you view the Getting Started CD-ROM in your 9290 Communicator sales packet. Support options include:

- **Getting Started CD-ROM This takes you through the basics and helps you set up key Communicator features such as Short Message Service (SMS), Internet access, and e-mail. It also provides step-by-step instructions for using these and other features. You can also find additional software for your Communicator and PC on this CD-ROM.**

- **www.Communicatorworld.net Visit this site to find the latest news about the Communicator, download ring tones, images, and software. You can also link to information on different development possibilities as well as marketing support programs for developers, system integrators, and other Nokia partners. The web site also links to information on documents, drivers, quick guides, and information on compatibility issues.**
- **1-800-4MY-9290 Nokia provides this toll free customer support line specifically for Nokia 9290 Communicator owners.**
- **www.nokiahowto.com This web site is an interactive step-by-step user manual to help you learn how to use all the features on your 9290 Communicator.**

Using the phone

To be able to send and receive calls and messages on your Nokia 9290 Communicator, you must have the following:

- the phone must be turned on,
- a valid SIM card must be inserted, and
- you must be located in the service area of the wireless network.

Emergency calls to the emergency number 911 or other official emergency numbers may be made without the SIM card.

IMPORTANT: Your communicator can be locked with a lock code. The default lock code is **12345**. For security reasons, it is imperative that you change the lock code. Keep the code secret and in a safe place, separate from the communicator. For more information on changing the lock code, see section 'Security' on page 230 of the user guide.

First start-up

Note: Keep all miniature SIM cards out of the reach of small children.

When you subscribe for service, your service provider gives you a SIM card and a phone number. The SIM card identifies your number to your service provider.

If you have several GSM 1900 phones, you can move the phone number from one phone to another by moving the SIM card to the phone you wish to use.

WARNING: Support for features may vary with different service providers.

To start-up your phone:

1 Close the device cover and ensure that the phone is turned off. If it is on, press .

2 If the battery is connected to the communicator, remove the battery. Press the catch at the top of the of the battery and lift the battery away from the battery cavity. Figure 2.

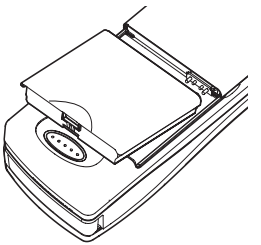

Figure 2

3 Slide the SIM card into the SIM card slot: ensure that the gold contacts of the SIM card are facing down and that the bevelled corner of the card is on the right. See Figure 3.

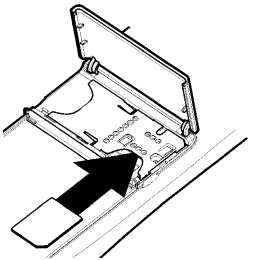

Figure 3

When the card is properly inserted into the SIM card slot, the bevelled corner remains visible, as shown in Figure 4.

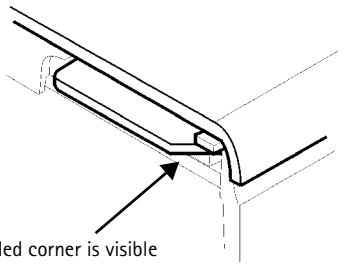

Figure 4

4 When you are sure that the SIM card is correctly installed, replace the battery. If there is little or no charge in the battery, it is recommended that you connect the communicator to the charger and start charging the battery before continuing with the start-up procedure.

5 Open the cover of the communicator. You will see a welcome screen while the communicator performs a self-test.

6 After the self-test is complete, if the choice of multiple keyboard layouts is supported, you will be prompted to select the correct keyboard setup. Press **OK** to confirm the keyboard selection.

If not, you will see a list of cities on the display.

Tip: You can later change the home city, time zone, date, and time formats of your communicator in the Control panel with Date and time and Regional settings applications.

7 Scroll to the name of your home city with the Arrows key and press **OK**. A view showing the current time and date opens.

You can search for a city by typing the name of the city in the search field at the bottom of the view.

8 Change the time and date if necessary and press **OK**.

9 Next you can modify your personal information in a business card. Press **OK**.

If a valid SIM card is inserted in your communicator, the business card may have retrieved some information from the SIM card.

Tip: You can later attach a picture to your business card in the Contacts application.

10 A note confirming that you have completed start-up successfully appears. Press **OK**.

Note: The battery does not fit into place if the SIM card is not correctly installed. Do not force the battery into place! Check that you have inserted the SIM card into the slot as described above. If the SIM card is incorrectly installed, remove it by pulling it out of the slot, and insert it again.

Memory card

The memory card supplied with your Nokia 9290 Communicator is already inserted in the memory card slot. You can use a memory card to manage your documents, contacts databases, applications, backups, and so on.

Use the items on the memory card in the same way as corresponding items on the communicator. You can, for example, install and remove software to and from the memory card with the Install/Remove software application, and send messages to contacts in the contacts directory of the memory card.

Note: The memory card is hot-swap-capable between the Communicator and some digital cameras, MP3 players, and PC card readers. However, file formats may vary between the Communicator and other devices. Check the user manual of your camera, MP-3 player, or PC card reader to determine compatibility with the Communicator. Do not remove the memory card while reading or saving a file.

Tip: To use the online help, open the cover and press the (help) key.

Inserting a memory card

1 Close the device cover and make sure that the phone is switched off. If it is on, press .

2 Open the hatch at the back of the communicator, using a minimum of two fingers - one finger on each side of the hatch.

3 Slide the memory card under the memory card holder as shown in Figure 5. Make sure that the gold contacts of the card are facing down.

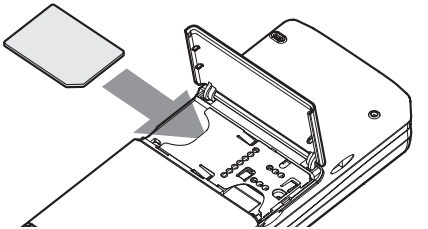

Figure 5

4 When you have secured the card in place, close the hatch.

Charging the battery

Note: See important safety information on battery usage on page 9.

Tip: To check the current battery level, see the battery indicator on the communicator or phone display.

1 Connect the charger cable to the bottom of the communicator, as shown in Figure 6.

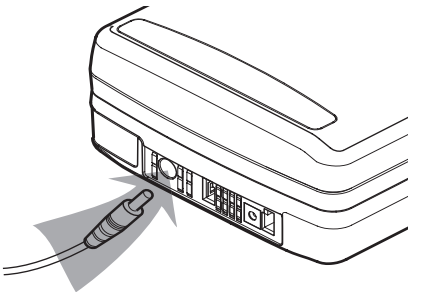

Figure 6

2 Connect the charger to the proper voltage AC wall outlet. While charging is in progress, the battery level indicator scrolls on the phone display.

3 When the battery is fully charged, the bars stop scrolling and four bars are displayed. You may now remove the charger plug from the communicator.

Note: You can use all the features of the communicator during charging.

When the battery level is low and only a few minutes of operation time remain, a warning tone will sound, and the message BATTERY IS LOW will be repeated at regular intervals on the phone display. When the charge level becomes too low for operation, the RECHARGE BATTERY message will be displayed, accompanied by a warning tone. If you do not connect the communicator to a charger, the communicator switches itself off.

Note: When you connect a communicator with a fully discharged battery to a charger, it will take 30-60 seconds before the CHARGING message appears on the display and the battery indicator bar starts scrolling. After that, it may take 10-30 seconds before you can switch the phone on.

WARNING: Keep all SIM cards and memory cards out of the reach of small children.

Battery information

Tip: Read this section for information on how to prolong the life of your battery.

Use the battery only for its intended purpose.

Never use any charger or battery that is damaged or worn out.

Do not short-circuit the battery. Accidental short-circuiting can occur when a metallic object (for example coin, clip, or pencil) causes direct connection of the + and - terminals of the battery (metal strips on the bottom of the battery), for example, when you carry a spare battery in your pocket or purse. Short-circuiting the terminals may damage the battery or the connecting object.

Leaving the battery in hot or cold conditions, such as in a closed car in summer or winter conditions, will reduce the capacity and lifetime of the battery. Always try to keep the battery between +15°C (+59°F) and +25°C (+77°F). A communicator with a hot or cold battery may temporarily not work, even when the battery is fully charged. The performance of Lithium-ion batteries is particularly limited in temperatures below 0°C (+32°F).

Do not dispose of batteries in a fire!

Batteries must be recycled or disposed of properly. Batteries must not be disposed of in municipal waste.

Note that a new battery's full performance is achieved only after two or three complete charge and discharge cycles.

Use only batteries approved by the communicator manufacturer and recharge the battery only with the chargers approved by the manufacturer. With approved chargers and accessories, the battery can be charged continuously.

The battery need not be fully discharged before recharging. When a charger is not in use, disconnect it from the power source. Do not leave the battery connected to a charger for longer than a week, since excessive charging may shorten its life. If left unused, a fully charged battery will discharge itself over time.

The battery can be charged and discharged hundreds of times, but it will eventually wear out. When the operating time (talk-time and stand-by time) is noticeably shorter than normal, it is time to buy a new battery.

Temperature extremes will affect the ability of your battery to charge: allow it to cool down or warm up first.

Battery operation time is affected by the following: whether both the phone and the communicator interface are on, radio signal strength, various phone settings, and the length of the screen blanker period.

It is always recommended to keep a charged battery in the communicator. Keeping the battery charged maximizes the lifetime of the backup battery supplying power to the real-time clock of the communicator. In case the backup battery is drained, it will be automatically charged the next time a charged battery is reconnected to the communicator.

Always close the device cover before removing the battery. Closing the cover will save all data.

Note: The battery does not fit into place if the SIM card is not correctly installed. Do not force the battery into place! Check that you have inserted the SIM card as described in the Getting Started Guide. If the SIM card is incorrectly installed, remove it by pulling it out of the slot, and insert it again.

Communicator interface

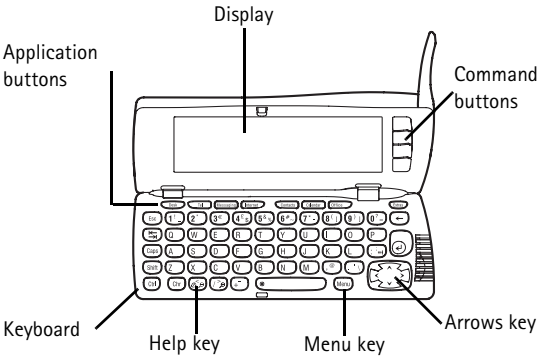

Figure 7

The main features of the communicator interface, including the display, are shown in Figure 7. The display is turned on simply by opening the cover. The application that was active the last time the communicator was used is shown on the display.

When you close the cover, the communicator interface saves all data and turns off its display.

Note: When you press **Close**, switch to another application, or close the device cover, the Nokia 9290 Communicator saves all data automatically.

Use the applications

The buttons at the top of the keyboard start the corresponding applications. The application buttons are: **Desk**, **Telephone**, **Messaging**, **Internet**, **Contacts**, **Calendar**, **Office**, and **Extras**.

To switch to another application or application group, press the corresponding application button. You can do this even during a call. You need not exit any application before starting another. All inactive applications remain in the background until you start them again.

Tip: You can select running applications in the 'Task Menu' at the left-hand end of the menu bar.

Display elements

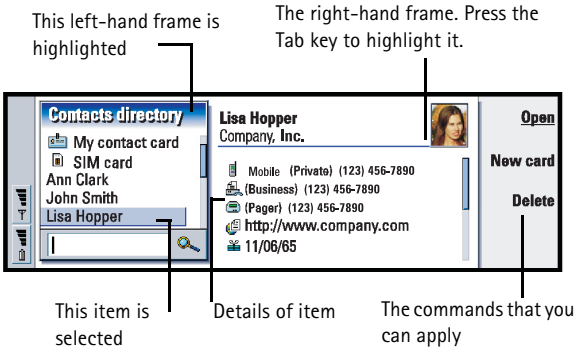

Figure 8

The main elements of the display are shown in Figure 8. Commands always relate to the four command buttons on the right side of the display. In the guides, commands are in **bold** and items shown on the display and on the menu bar are in italics.

The scroll bar indicates that there are more items than currently shown on the display. You can scroll the display with the Arrows key at the bottom right-hand corner of the keyboard.

Example: When the user guide instructs you to 'press **Open**', it means that you must press the command button next to the command name **Open**.

When there is a search field at the bottom of the display, you can search for items by using the keyboard to enter text into the search field.

If there is more than one frame in the view, the selected one is always highlighted.

To move around a selected frame and select items, use the Arrows key.

Press the Menu key to get access to menu commands.

Setup configuration

To access the Internet, WAP services, and your remote mailbox, you need to configure the relevant settings.

Note: To help you configure these settings, see the Settings checklist at the front of this guide. In the checklist you can see the information you need, where to get it from, and where to enter it in your communicator. More importantly, add the information to the checklist for future reference and use it to communicate with your service providers about the information you need to receive from them.

1 Press the Extras application button on the keyboard.

2 Select the *Internet startup* icon with the Arrows key and press **Open**. Three icons appear: *Internet access*, *WAP access*, and *Mail account*.

3 Select *Internet access* and press **Open**. A dialog opens.

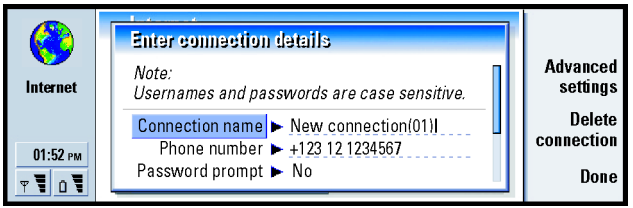

Figure 9

Tip: For help on the information required in this and the next dialogs, press the key on the keyboard to view the online Help.

4 Enter the details and press **Advanced settings**. A dialog with four pages opens. Enter the details on each page.

Tip: To move between pages, press the Menu key.

On the *Other* page, press **Address options**. A dialog opens.

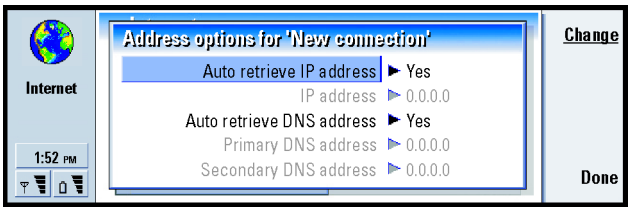

Figure 10

Define the IP and DNS addresses.

Press **Done** to return to the view with three icons.

5 Select *WAP access* and press **Open**. A dialog opens.

Tip: For details, see the Internet chapter of this guide.

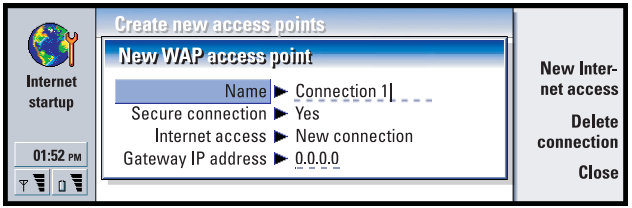

Figure 11

Enter the details on each page and return to the view with three icons by pressing **Close**.

Tip: For details, see the Messaging chapter of the User guide.

6 Select *Mail account* and press **Open**. A dialog with four pages opens.

Enter the details on each page and return to the view with three icons by pressing **Done**.

Note: For more information on defining your Internet and mail settings, see the Internet and Messaging chapters of this User Guide.

PC connectivity

You can connect your communicator to a compatible PC or laptop using the PC Suite for Nokia 9290 Communicator program found in the communicator sales package CD-ROM. The CD-ROM also contains PC Suite Guide in the *Using Nokia 9290 Communicator* section.

PC Suite for Nokia 9290 Communicator is a PC application that works with Windows 95/98, 2000, and NT. It integrates the file system of your communicator to the file system of your PC, allowing you to quickly and easily move, copy, rename, and delete files and folders on and between your communicator and your PC.

With PC Suite you can synchronize application data like contacts or e-mails between your communicator and your PC and back up data to your PC. You can also automate synchronization and backups so they happen at predefined times or on connection.

You can also use PC Suite when it is not connected to your communicator (offline mode). When you connect the two devices the next time, the changed information can be updated from your PC to your communicator and vice versa.

WARNING: Beware of viruses. Only install software onto the communicator that you have obtained from sources that offer adequate protection against viruses. See 'Certificate Management' in the user guide.

Connect your communicator to your PC

1 If you use a cable, connect the larger end of the RS-232 cable to the serial (COM) port of the PC, and the smaller end to the connector at the bottom of the communicator.

2 If you use infrared or a serial port other than COM1, double-click the PC Suite connection icon on the WIndows taskbar and choose the right connection port.

3 Open your communicator.

4 If you use an infrared link, make sure that the infrared port of the communicator faces the infrared port of the PC. Press Chr + (the key with the infrared symbol) to activate the infrared link on your communicator. For more information about activating infrared on your communicator, see the User guide.

5 Start the PC Suite software on the PC.

The PC Suite software should now connect to your communicator automatically.

Desk

The Desk application group is used for managing and using various links to your favorite applications or third-party software. You create these links in the relevant applications.

Adding a link

1 Open the item in the appropriate application.

2 Press the Menu key and then select *Add to Desk*.

Writing notes

1 Press **Write note**. A simple text editor opens.

2 Write the note.

3 Press **Close** to save the document. The note will now appear in the main view of Desk.

Telephone

Telephone is used for making and receiving voice calls and adjusting the telephone settings. To start Telephone, open the communicator cover and press the Tel application button on the keyboard. Many of the actions you do in the Telephone application you can also do using the front cover of the communicator.

To make phone calls,

- the phone must be switched on,
- the communicator must have a valid SIM card fitted, and
- you must be located in a service area of the wireless system.

Making a call

There are two main ways to make a call:

- Select a contact from the Telephone directory and press **Call**. If the contact has only one phone number, the number is called immediately.
- If the contact has several phone numbers, a list opens showing the phone numbers; choose a number from the list and press **Call**.
- Enter the phone number in the search field at the bottom of the main view and press **Call**.

Answering a call

When you receive a phone call, a note appears on the display. Depending on the profile settings, you may also hear a ringing tone.

To answer the call, press **Answer**.

If you do not wish to answer it, press **Decline**.

Flight profile

The Flight profile prevents you from accidentally turning on the phone in an aircraft. To select the Flight profile:

1 In the Telephone main view press Menu key, scroll across the menu bar to the Profiles icon , then highlight *Flight*.

2 Press **Select**.

With the Flight profile active, you may perform tasks which do not require communication with the wireless network. For example, you can read previously downloaded mail, write mail, notes, short messages, faxes, or update your calendar.

Once you have left the aircraft, turn off flight profile in the Telephone application by pressing **Exit profile**. Then you can turn on the phone by pressing , and your short messages, faxes, and mail will be sent automatically.

When the communicator is in the flight profile, emergency calls must be made from the phone (close the communicator cover) as follows:

1 Press . The phone display will read *Flight profile is active.*

2 While the note is visible (for approximately five seconds) you can dial an emergency number programed into your communicator, for example 911.

3 Press .

IMPORTANT: Wireless devices can cause interference in an aircraft. If the aircraft personnel allow use of the communicator interface, you MUST activate the Flight profile. The Flight profile will allow use of the communicator interface only and will prevent use of the phone. Be aware that all communications applications require use of the phone.

Messaging

Messaging contains the following applications: Fax, Mail, and SMS (Short Messaging Service). Start Messaging by pressing the Messaging application button on the keyboard.

To send and receive faxes, mail and short messages,

- the phone must be turned on,
- the system you are using must support fax calls, data calls, and SMS,
- the fax, data, and SMS services must be activated for your SIM card,
- you must have obtained an Internet Access Point (IAP) from an Internet service provider and have entered the proper Internet and Mail settings,

- the SMS message center number must be stored in the settings of the SMS application.

Contact your home service provider for details.

Note: The Nokia 9290 Communicator mail system is compliant with the Internet standards SMTP, IMAP4, and POP3.

Write and send faxes, mail, and short messages

You write, edit, and send faxes, mail, and short messages in their corresponding editors, which you can enter in any one of three ways:

- Write and format text in any application that allows it in the communicator. To send the text, press the Menu key, select *File* > *Send* and select one of the sending options available in the submenu.
- Press any of the following commands in the main view of Messaging: **Write fax**, **Write mail**, or **Write short message**.
- Press the Menu key in the main view of Messaging and select *Write* > *New message...*. Then select the appropriate message type.

Select recipients

Note: A fax or a short message can have only one recipient.

There are two ways to select recipients of your fax, mail, and short messages:

1 Press **Recipient** in the corresponding message editor. A dialog listing your contacts opens.

Search for a contact or contacts in the left frame and press **Select**.

2 Press **Done**.

Alternatively, type the name of the recipient into the header of the fax, mail, or short message and check it against your contacts database.

Receive and read faxes and short messages

Faxes are received automatically, provided that this service is available, the phone is turned on, and within wireless network coverage. Short messages are received automatically, provided your phone is switched on.

There are two ways you can read a received fax or short message:

- When you see a note on the display or hear a tone indicating a received item, press **Open**. The tone will sound only in certain conditions.
- Go to the Messaging application. From the Inbox, select the received item and press **Open**. The fax or short message opens in the appropriate viewer.

Retrieve and read mail

Mail addressed to you is not automatically received by your communicator, but by your remote mailbox. To read your mail, you must first connect to the remote mailbox and then select the messages you wish to retrieve to your communicator. Connection to a remote mailbox is established via a data call.

Connect to a remote mailbox

1 Select the remote mailbox in the left frame of the Messaging center main view.

2 Press **Retrieve mail**.

3 When the connection to the remote mailbox has been established, press the Menu key and select *Retrieve* > *New* or *Selected* or *All* mail messages.

4 When all the mail messages you have requested are retrieved, press **Go offline**.

5 Select a mail that you wish to read and press **Open**.

Note: You can define your remote mailbox account settings to retrieve only message headers. When you retrieve your mail using these settings, you will be prompted to download the rest of the selected message after you press **Open**.

Internet

To obtain access to the Internet,

- the wireless system you use must support data calls,
- the data service must be activated for your SIM card,
- you must have obtained an Internet Access Point (IAP) from an Internet service provider (ISP), and
- you must have entered the appropriate Internet settings. Follow the instructions in the User guide. Use the single card Settings checklist in the sales package to record your settings.

Your ISP will give you instructions on how to configure the Internet settings. Follow the instructions carefully.

Note: You must have your phone turned on, within network coverage, and free of any other voice or data call to connect to the Internet.

To establish an Internet connection:

1 Press the Internet application button on the communicator keyboard.

2 Select the application you want, for example WWW, and press **Open**. When the application needs to make a connection, a dialog opens, showing the *Connection name* and *Phone number* of the Internet access point you are using to establish a connection.

3 Press **OK** to establish a connection.

4 To close an application, press **Done**.

5 To disconnect from the Internet, in any of the Internet applications, press the Internet application button on the keyboard and press **Disconnect**.

Disconnection is immediate.

World Wide Web (WWW) browser

The WWW is a hypertext system for finding and accessing resources on the Internet. To navigate in the World Wide Web:

Example: An example of a URL address is: **www.Nokia.com**.

Tip: Some Web sites require your user name and password before the WWW page can be retrieved.

1 Press the Menu key and select *File* > *Open* > *Web page...*

2 Enter a URL address into the address field or select a bookmark in the Bookmarks list and press **Go to**. You can also navigate to other sites from the opening page of your WWW browser.

3 When a page is retrieved and open, to select links, press the A key. To move backwards, use the Q key. Alternatively use the Pointer tool. For more information on the Pointer tool, see 'Browse with the pointer' on page 163.

4 To go to another page or site, select a hyperlink or hotspot and press **Go to**.

WAP

The WAP services application is a hypertext system used to access Internet services containing news, weather reports, flight times, dictionaries, and so on. It is intended for mobile users with mobile devices.

To obtain access to WAP services:

- you need to be within the coverage area of a system which supports data calls,
- a data service must be activated for your SIM card,
- you must have obtained a WAP access point from a WAP service provider, and
- you must have entered the WAP settings. Follow the instructions in the User guide.

Navigate WAP services

To open a WAP page:

1 Press the Menu key and select *File* > *Open page*. A dialog opens. Enter the address of the URL, for example: www.nokia.com. Use the Arrows key to scroll the view to choose hyperlinks and hotspots.

Note: Some servers have access restrictions that require a valid user name and password. In this case, you will be asked to enter the user name and password before a connection to the service can be established.

Contacts

Start Contacts by pressing the Contacts application button on the keyboard. Use Contacts for creating, editing, and managing all contact information, such as phone numbers and addresses. The entries in the Contacts directory are called contact cards. You can synchronize your contacts with a compatible PC. For more information on synchronizing contacts, see the PC Suite Guide on the sales package CD-ROM.

The main contacts database is in the communicator's memory. You can also store contacts in separate databases on an attached memory card.

Making a contact card

1 In the Contacts main view, press **New card**.

2 When the contact card opens, enter information in the various fields.

3 To save your contact card, press **Done**.

Calling a contact

The Contacts main view consists of two frames, left and right. Press the Tab key to move across to the right-hand frame. Highlight a telephone number of the contact and press **Call**.

Calendar

In the Calendar application, you can check your scheduled events, appointments, anniversaries, birthdays, as well as list things to do. You can set alarms to all of the calendar entries. To start the Calendar application, press the Calendar application button on the communicator keyboard.

You can synchronize your calendar and tasks with Microsoft Windows and Lotus programs when you connect your communicator to a compatible PC. For more information on synchronization, see the PC Suite Guide on the sales package CD-ROM.

Create a new calendar entry

One way to create a new calendar entry is:

1 Press the Menu key and select *File* > *New entry*. Select the entry you wish to create: *Appointment...*, *Event...*, *Anniversary...*, or *Task...*.

2 Enter information into the fields in the pages of the dialog.

Month view

The month view is the main view of Calendar. If you have entered information into Calendar for a particular month, you will see a list of events on the right-hand side of the display. To edit an event:

1 Press the Enter key or **Edit day** to highlight the right-hand frame.

2 Select the event, and press **Edit**. The entry details form opens.

3 Change the information about the entry as necessary.

Week view

The week view shows the timetable of the selected week. To check the week view, press **Change view** and select *Week*.

Day view

The day view displays entries of the selected day. To open the day view, press **Change view** and select *Day*.

Task lists

The task lists show one task list at a time. You can use task lists to list and organize tasks. You can set deadlines dates and priorities for your tasks. You can also have several task lists, for example, one for business tasks and another for personal tasks.

Other views

The communicator contains other views, such as the Year schedule and the Anniversaries view.

Office

Office contains the following applications: Document, Sheet, Presentation viewer, and File manager, which are all compatible with Microsoft Windows.

Create a document

When you open the Document application, a new file is opened. You can start writing immediately.

To save the document, press **Close**. A dialog opens. You should now name the document and choose the folder in which you would like to save it.

Sheet

In Sheet you can work and store your data in a file that is called a workbook. Each workbook contains at least one worksheet. A workbook can also contain chartsheets; a chartsheet is a spreadsheet document containing a chart that is based on data from a worksheet.

Create a workbook and worksheets

Tip: To add a worksheet to the Desk application, press the Menu key and select *File* > *Add to Desk*.

To create a new workbook, press the Menu key and select *File* > *New workbook*.

To save a workbook, press the Menu key in the worksheet view and select *File* > *Save*.

To create a new worksheet in a workbook, press the Menu key and select *Insert* > *New worksheet*.

To enter data, select a cell with the Arrows key and start typing the data in the selected cell.

To confirm what you have entered in a cell, press **Enter**, **OK**, or go to another cell with the Arrows key. To dismiss the action, press **Esc** or **Cancel**.

To determine the category to which you want the data in the cell to belong, press **Function**. The categories are as follows: *All*, *Financial*, *Date and time*, *Mathematical*, *Statistical*, *Lookup*, *Text*, *Logical*, and *Information*. Each category has a set of functions, which you can see from the list next to *Function name*.

Create chartsheets

There can be seven different kinds of charts: *Column*, *Stacked column*, *Line*, *Pie*, *Bar*, *Stacked bar*, and *X/Y scatter*.

1 Select a range of cells on a worksheet. These will provide the data for your new chartsheet.

2 Press the Menu key and select *Insert* > *New chart*. A dialog opens.

3 Define the following: *Chart name*, *Chart type*, *3-D*, *Background color*, and *Axis color*.

4 Press **Close** to create a new chartsheet and **Cancel** to dismiss it.

Presentation viewer

To open a presentation press **Open** in the Presentation main view to select and view a document. To close the application, press **Close**.

When a document is opened, the top of the first slide is shown. To view the next slide, press **Next** or **Enter**. To view the previous slide, press **Previous**. To scroll the current slide, use the Arrows key.

Tip: You can zoom in and out to get a better view of the presentation.

File manager

You can use File manager to manage the contents and properties of various folders.

In the folder frame, the tree can contain folders from two roots, the communicator and memory card.

Under the communicator root there is *C:\Documents* folder that contains four default folders: *\Documents\Downloaded*, *\Documents\Photo gallery*, *\Documents\Templates*, and *\Documents\Tones*.

In the files frame, the file list shows all the files that can be found from the source or folder currently selected in the left frame. The title of the file list frame shows the path of the currently selected file. The file list frame also shows the application-related icon, name, and the last modification date of the file. The files are sorted in alphabetical order.

View the contents of a folder

1 Choose a folder in the left folder tree frame and press **Open**.
A view of all the subfolders and files of the parent folder opens.
2 To view any possible subfolder, select it and press **Open**.
3 Press **Done** to return to the main view.

Open a file

1 Select a file and press **Open**. The file will then open in the corresponding application.
2 To return to the main view, press **Close folder**.

Create new folders

1 Press the Menu key in the main view of File manager and select *File* > *New folder*. A dialog opens.
2 Name the new folder.

Search for files and folders

1 Choose the folder or memory storage where you want the search to take place.
2 Press the Menu key > *Tools* > *Find...*. A dialog opens.
3 Type in the field the string you wish to search for.
4 Press **Options** to define the search in more detail.
Press **Change** to change the value of a list item.
When ready, press **Close**.
5 Press **Find** to start the search.
To interrupt the search, press **Stop**.
6 When the search is over, press **Open** to open the folder or file found.
To start a new search, press **New find**.
7 To return to the main view, press **Close**.

Extras

Press the Extras application button on the keyboard to see extra applications. To start an application, use the Arrows key to highlight an application and press **Open**.

You can install additional applications from the CD-ROM in the sales package.

Clock

The Clock shows the time and date in your home city and country or region, as well as in several other cities and countries or regions in the world. The Clock also includes an alarm clock.

Set an alarm

1 Press **Alarm clock** in the main Clock view. An alarm clock view opens.

The currently active alarms are listed next to the clock.

2 To create a new alarm, press **New alarm**.

To edit an alarm, press **Edit alarm**.

A dialog opens.

3 Define the requirements of your alarm such as the *Time*.

4 Press **Close** to accept the set alarm.

Tip: You can set calendar alarms in the Calendar application.

Turn off the alarm sound

Press **Stop** or any key on the keypad of the phone cover.

Press **Snooze** to silence the alarm for a set time.

Calculator

There are two modes in Calculator: a desk calculator for simple arithmetic operations, and scientific calculator for more complicated mathematical calculations.

There are two ways to perform calculations, either by entering characters in the input field or selecting symbols from the function map. A calculation is executed by pressing **Enter** or **=**. The calculation and its result can be seen on the output sheet on the left on the display. To move between the input field, output sheet, and function map, press the Tab key or **Change focus**.

Control panel

In the Control panel you can view or modify the following: *Security*, *Data call restrictions*, *Profiles*, *Display*, *Accessories*, *Certificate manager*, *Date and time*, *Install/ Remove software*, *Internet access*, *About product*, *Memory*, *Regional settings*, and *Default folder*

Modifying these features affects the operation of your communicator across all the applications.

To open a program for editing, select it with the Arrows key and press **Open**.

Recorder

Tip: With the Recorder you can record sounds and speech and set them as ringing tones.

The Recorder allows you to record telephone conversations and voice memos. You can also listen to and edit your recordings and other sound files.

WARNING: In some jurisdictions it is unlawful to record a phone conversation without first advising all call participants.

Phone

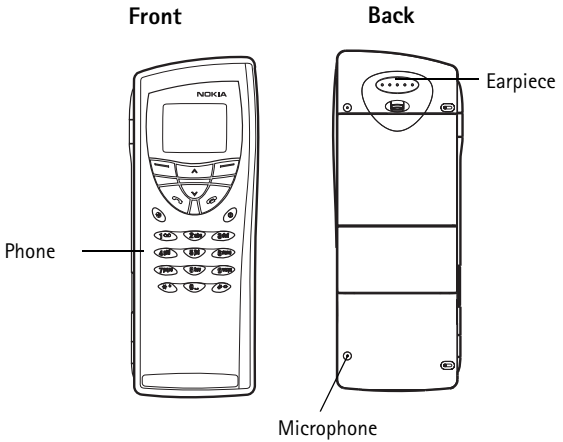

Figure 12

Switch on the phone

1 Close the device cover, if it is open.

2 Press and hold ⏻ to switch on the phone.

If you are prompted for the PIN code, enter your PIN code, which is provided with the SIM card, and press the — key directly under the '**OK**' text on the display.

IMPORTANT: Do not switch on the phone when the use of wireless phones is prohibited, or when it may cause interference or danger.

Display indicators

The display indicators inform you about the current operation of the phone. The indicators described below are shown when the phone is ready for use, with no characters entered on the display.

SYSTEM NAME or LOGO

- Indicates which wireless system the phone is currently using.

and bars above this symbol.

- Indicates the signal strength at your current location. The more bars are visible, the stronger the signal.

and bars above this symbol.

- Indicates the remaining charge in the battery. The more bars are visible, the more charge remains in the battery.

For information on other display indicators, see Phone chapter of this guide.

Making and answering calls

To make a call, enter the area code and the phone number, then press .

To answer a call, press .

To end a call, press .

Selection keys

Switches between profiles.

Scroll through menus, submenus, or settings. If there are no active calls, you can use the scroll keys to browse through the memory contents. When a call is active, you can adjust the volume level by pressing the scroll keys.

0 to **9** The number and alphabet keys. To call your voice mailbox, press and hold **1**.

***** **#** Used for special functions. If you have subscribed to two phone lines, you can switch between them by pressing and holding **#**.

The function of these two selection keys depends on the text shown at the bottom of the display.

Note: The earpiece and microphone are at the rear of the device.

Install/Remove software

With Install/Remove you can install new software or remove installed applications from your communicator.

When you open the Install/Remove application, the *Installed software* page lists all of the software packages that have been installed, with their name, version number, type, and size.

Press **Certificate Info** to display the certificate details of an installed software package that has a digital signature and a certificate.

Install software

The types of applications which you can install are those that are specifically intended for the Nokia 9290 Communicator or suitable for the Symbian operating system on Crystal style devices, and Java applications.

Note: If you install software that is not intended specifically for the Nokia 9290 Communicator, its usage can differ significantly from the usual Nokia 9290 Communicator applications.

You can download or transfer a software package containing the files of the application into the communicator. Then you can install the application. Software can also be installed from a memory card. A software package is usually one large compressed file containing many component files.

Tip: You can also start the installation by browsing for the installation package in communicator memory or memory card with File manager, selecting it, and pressing the Enter key.

IMPORTANT: When downloading or transferring software packages into the communicator, use only packages whose file names end '.sis'. An example of a suitable file name is 'MediaPlayer.sis'.

To start the installation, press *Install new* on the *Installed software* page. Browse for the software package you want to install, and press **OK**. The installation process begins.

WARNING: Only install software from sources that offer adequate protection against viruses and other harmful software. To help you, the software installation system on the Nokia 9290 Communicator uses digital signatures and certificates on software packages. See page 35.

If you are installing software without a digital signature or a certificate, the communicator warns you of the risks of installing software, as shown in Figure 13.

Tip: If you have installed PC Suite for Nokia 9290 Communicator on your PC and the communicator is connected to your PC, you can also install software by double-clicking a file ending with .sis stored on your PC.

Figure 13

If you see this warning message, only continue installation if you are absolutely sure of the origin and contents of the software package.

The installation procedure also checks the integrity of the package to be installed. Once these checks are complete, the application is installed on your communicator. During the installation process, you are shown information about the checks being carried out on the package. You are also given options whether to continue with or cancel the installation.

Remove software

1 To remove an installed software package from your communicator, select the software package you want to remove from the *Installed software* page and press **Remove**.

2 A dialog appears asking for your confirmation. Press **OK** to remove the software.

Note: Some software packages update existing software and cannot be removed.

IMPORTANT: If you remove software, you can only re-install it by having the original software package file, or by restoring a full back-up that contains the removed software package. If you remove a software package, you may no longer be able to open documents created with that software. If an another software package depends on the software package that you removed, the other software package may stop working. Refer to the documentation of the installed software package for details.

Installation log

To view the list of software installations and removals that have taken place, press the Menu key and go to the *Install log* page. This list shows what software has been installed and removed, and when that happened. If you encounter problems with the device after installing a software package, you can use this list to find out which software package may be the cause of the problem. The information on this list may also help to pinpoint problems that are caused by software packages that are incompatible with each other.

Installation settings

On the Preferences page, you can select options related to software installation. You can define the following:

Delete installation file after use - If set to *Yes*, the software package installation file (that ends in**.sis**) will be deleted from the device after installation. If you download software packages using the WWW browser, this may be helpful in reducing the amount of required storage space.

Note: If you want to store the software package file for possible re-installation later on, either set this to *No* or make sure that you have a copy of the software package file stored on your PC or on a CD-ROM.

Default installation language - You can set the default installation language to the language that your Nokia 9290 Communicator has. If the software package contains several different language versions of the software, the language version specified here will be installed.

Sort installed software by - To sort the list of installed software packages, select one of the options *Name*, *Type*, or *Size*.

Getting help

Online Help

The communicator has a help function, which you can access from any application or view.

To view help, press the key on the communicator interface keyboard. You are shown a page of information relevant to the task you are doing. You can also search the help topics for specific subjects and keywords.

There are also several support options available to Nokia 9290 Communicator owners. For more information See 'Support options' on page 2.

Tip: The key is on the bottom row of the keyboard.

About the guides in the sales package

The Nokia communicator sales package contains the following guides either in print or as PDF files.

- The PC Suite Guide and the Software on CD-ROM Guide are both on the CD-ROM under the section "Using the Nokia 9290 Communicator".
- To help you begin to use your communicator, turn to the Getting Started chapter in the user guide. It explains the start-up procedure and gives basic information on how to use the various applications.
- The "General information" chapter in the user guide explains in more detail how the Nokia 9290 Communicator operates. It also identifies the various parts of the communicator and their functions, as well as the common features of the communicator.

  The rest of this user guide deals with the communicator applications and the phone. There is a short glossary of Internet and wireless terms and abbreviations at the back of the user guide.

- The PC Suite Guide explains the functionality of PC Suite for Nokia 9290 Communicator. With PC Suite you can move, copy, synchronize, back up, and restore data between your communicator and a compatible PC.
- The Software on CD-ROM Guide explains in detail the functionality of the applications found on the CD-ROM that you can install on your communicator.
- The Add-on Applications Guide gives a brief introduction of other software available for the Nokia 9290 Communicator. This guide is only available in a printed version.
- The Getting Started card and the Getting Started CD-ROM help you to connect your Nokia 9290 Communicator with different kinds of wireless services.

In the Getting Started chapter of the user guide, the names of the commands on the display are in bold and the settings and options are in italics.

Accessibility solutions

Nokia is committed to making mobile phones easy to use for all individuals, including those with disabilities. For more information, visit the Nokia World Wide Web site: www.nokiaaccessibility.com.

This user guide is available in alternate formats. To request any format, call Nokia Customer Care at (888) 665-4228.

TTY/TDD users can contact Nokia at (800) 246-6542.

Facts about your communicator

About system services

The wireless phone described in this user guide is GSM 1900 MHz.

A number of features included in this user guide are called network or system services. They are special services provided by wireless service providers. Before you can take advantage of any of these services, you must subscribe to the service(s) you require from your home service provider and obtain instructions for their use. You can then activate these functions as described in this user guide. The manual activation commands for various services are not presented in this user guide (for example, using the # and * characters for activating or deactivating services). The Nokia 9290 Communicator, nevertheless, is capable of handling commands given in that form. For these commands, please consult with your service providers.

Services that need to be subscribed to are typically the short message service, Internet, and fax.

Because the number of special services depends on what services are available in your home network, it is, unfortunately, impossible to provide a comprehensive list of the services and settings you need in this user guide. Therefore, this user guide gives general information about additional services. Please contact your service provider for further information about the availability and the details of services in your home system.

If a service requires separate phone numbers or specific settings, they must be stored in the settings of the communicator. For example:

Sending and receiving short messages requires that this service is supported by the system you are using and activated for your SIM card, and that the phone number of the message is stored in the settings of the SMS application.

Internet access requires that data service is supported by the system you are using and activated for your SIM card. In addition, you must have obtained an Internet access point from an Internet service provider.

Access codes

The Nokia 9290 Communicator uses several access codes to protect against unauthorized use of your communicator and SIM card. The access codes you need most often are:

- the lock code to lock up your communicator, and
- the PIN code, which is provided with the SIM card.

IMPORTANT: The default lock code is **12345**. For security reasons, it is imperative that you change the lock code. Keep the code secret and in a safe place, separate from the communicator. For more information on changing access codes, see section 'Security' on page 230.

You can change access codes that are used by both the phone and the communicator interface via either of them, provided that the code can be changed. For further details on access codes, see 'Security' on page 230.

The Internet applications of the communicator use passwords and user names to protect against unauthorized use of the Internet and its services. These passwords are changed in the settings of the Internet applications.

Contact information

All contact information that you store in the Contacts application, such as names, addresses, and phone numbers, goes into the Contacts directory. The phone, the communicator interface, and each of the applications have their own views of the Contacts directory. The information shown depends on the information the selected application can use. For example, when you are making a call via the phone, you can view the name and phone number(s) of the contact. Possible fax numbers, e-mail addresses, job titles, and so on, are not shown.

Tip: You can synchronize the contact information on your communicator with a corresponding application on a compatible PC. See the PC Suite Guide on the CD-ROM for details.

GSM data transmission

The Nokia 9290 Communicator employs the data transmission capabilities of the GSM 1900 MHz system to send faxes, short messages, and e-mail, and to establish connections with remote computers.

Wireless data connections can be made from most locations where your phone operates. However, it is recommended that you move the communicator to a location where the strongest possible wireless signal can be obtained. When the signal is strong, data transmission is efficient. In general, you should not expect the same performance from wireless data communications as from landline communications, due to the inherent characteristics of the wireless environment. The following factors may impair wireless connections:

Noise

Radio interference from electronic appliances and equipment, as well as from other phones will affect the quality of wireless data transmission.

Cell handover

As the phone user moves from one network cell to another, the signal strength of the channel drops and the wireless telephone exchange may handover the user to a different cell and frequency, where the signal is stronger. A cell handover may also occur when the user is stationary, due to varying wireless traffic loads. Such handovers may cause slight delays in the transmission.

Electrostatic discharge

A discharge of static electricity from a finger or a conductor may cause erroneous functions in electronic devices. The discharge may result in distorted display and unstable software operation. Wireless connections may become unreliable, data may become corrupted, and the transmission halted. In this case you need to end the existing call (if any), close the cover and switch off the phone (if on) and remove the battery. Then replace the battery and establish a new wireless connection.

Dead spots and dropouts

Dead spots are areas where radio signals cannot be received. Dropouts occur when the phone user passes through an area where the radio signal is blocked or reduced by geographical features or large structures.

Signal impairment

Distance and obstacles can cause signals to become out-of-phase. They can also cause reflected signals. Both situations result in a loss of signal strength.

Low signal strength

Due to either distance or obstacles, the radio signal strength from a cell site may not be strong or stable enough to provide a reliable data connection for communication. Therefore, to ensure the best possible communication, remember the following points:

- The data connection works best when the communicator is in a stationary position. Attempting wireless data communication while in a moving vehicle is not recommended. Fax transmission is more easily impaired than data or short message transmission.
- Do not place the communicator on a metal surface.
- Check that the signal strength on the communicator display is sufficient. Moving the communicator within a room, especially towards a window, may result in a stronger signal. If signals are not strong enough to support a voice call, data connection should not be attempted until you can find a location with better signal reception.

Note: When the antenna is up, the signal is stronger.

2. Phone

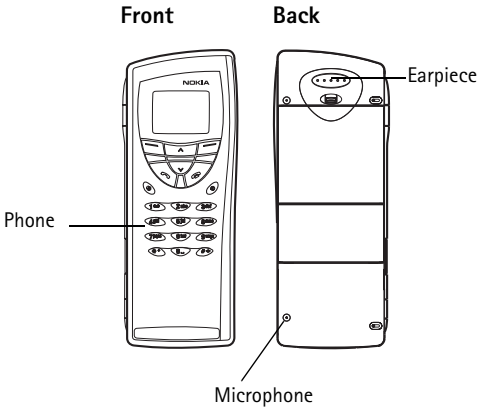

Figure 14

With the cover closed, you can make, receive, and manage calls, send and receive short messages, search for phone numbers, change profiles and define many settings. For more complicated tasks like sending long touch tone sequences or modifying phone settings, use the Telephone application. See the Telephone chapter, starting on page 93.

Selection keys

When operating the phone, press keys one at a time. The phone keypad is not functional when the cover of the communicator is open.

Switches the phone on and off.

Switches between profiles. See 'Profile settings' on page 101.

Scroll through menus, submenus or settings. If there are no active calls, you can use the scroll keys to browse through the phone book. When a call is active, you can adjust the volume level by pressing the scroll keys.

Tip: To call your voice mailbox, press and hold 1.

Dials a phone number and answers a call. Sends the ongoing call to hold if pressed during a call. In the standby mode shows the list of the most recently dialed numbers.

Ends any active call, cancels a dialed call, or clears the display.

0...9 The number and alphabet keys.

Tip: If you have subscribed to two phone lines, you can switch between them by pressing and holding #.

* #

Used for creating functions.

The function of these two selection keys depends on the text shown on the bottom of the display. See Figure 15.

Note: Hold the phone as you would any other mobile phone with the antenna pointed up and over your shoulder. Do not touch the antenna unnecessarily when the phone is switched on. Contact with the antenna affects call quality and may cause the phone to operate at a higher power level than otherwise needed.

IMPORTANT: Do not switch on the phone when the use of wireless phones is prohibited, or when it may cause interference or danger.

Use the selection keys

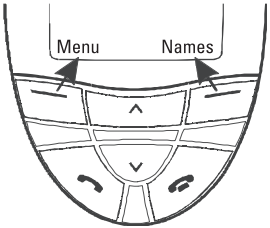

Figure 15

Selection keys are the keys located just below the right and left corners of the cover display. Commands on the display vary according to the situation and previous selections.

Example: Pressing the selection key under the text **Menu** gains access to the menu functions.

Often you must confirm the selection by pressing **OK**. If available, you can use **Back** command to return to the previous menu level without making any changes.

Tip: A press of the key will return the display to stand-by mode.

Display indicators

The display indicators inform you about the current operation of the phone. The indicators described on the next page are shown when the phone is ready for use, with no characters entered on the display.

SYSTEM NAME or LOGO - The wireless system you are currently using.

and bar - The current signal strength at your location. The more bars visible, the stronger the signal.

and bar - Battery charge level. The more bars visible, the more charge there is in the battery.

- The phone keypad is locked or the lock code is active.

- The phone will not ring to notify you of an incoming call.

- You have received one or several new voice messages.

- You have received one or several new short messages.

- You have received one or several new faxes.

- Infrared transmission is active.

- Call forwarding is active.

Make a call

To make and receive calls,

- the phone must be switched on,
- the communicator must have a valid SIM card fitted, and
- you must be located in a service area of the wireless system.

1 Key in the area code and the phone number of the person you wish to call. If you make a mistake, you can remove the digits one at a time by pressing **Clear** repeatedly. To clear the whole display, press and hold **Clear**.

2 Press to dial the phone number.

3 To end the call, press .

Tip: When a call is active, you can use the and keys to lower or raise the volume level of the earpiece.

Note: The microphone and earpiece are on the rear of the device.

International calls

When making international calls, start by pressing * twice quickly. The international call character '+' appears on the display, which informs the system center to select the international dialing prefix. The international call character '+' is a shortcut for the international prefix 011.

After this you can enter the country or region code, area code and phone number.

Note: Calls described here as international may in some cases be made between regions of the same nation.

Search for phone numbers

You can retrieve phone numbers from memory by the name with which the phone number was stored. For more information, see 'Call a number in the telephone directory' on page 94.

1 Press **Names**.

2 Scroll to *Search* and press **Select**.

3 Key in the name of the person whom you want to call, or the first letter(s) of the name.

4 Press **Search**. The name closest to the keyed characters will appear.

5 If the name found was not the one you searched for, scroll through the names with ∨ and ∧ until you reach the correct one.

6 Press **Details** to view the details of the highlighted name, or

press to call the person. If the person has several numbers, scroll the selection frame onto the one you want and press .

Tip: To choose which memory to use, press **Names**, scroll to *Options and* press **Select** twice. Scroll to choose *Device*, *SIM card*, or a contacts database you have created and press **Select**.

1-touch dialing

1-touch dialing is a handy way to call frequently-used phone numbers. You can define up to eight 1-touch dial numbers in the communicator memory. For information on how to set 1-touch dials, see page 104.

There are two ways to use 1-touch dialing:

- Press and hold the number of the 1-touch dial location where you have stored the phone number. For this to work, you must enable 1-touch dialing, see 'Call settings (3-1)' on page 63.
- Key in the number of the 1-touch dial location where you have stored the phone number. Press . The phone will display the phone number briefly, and then dial it.

Example: Press **2** if the 1-touch dial location for the phone number is 2.

1-touch dialing is not possible during a call.

Tip: Pressing and holding **1** dials your voice mailbox number.

Call service numbers

Your service provider may have stored service numbers on your SIM card. For more information, see 'Call a number in the telephone directory' on page 94.

1 Press **Names**.

2 Scroll to *Service Nos.* and press **Select**.

3 Scroll to the service number and press to call the number.

Send touch tones

If you need to send long touch tone sequences, it is more convenient to send them via the communicator interface, see 'Send touch tones during a call' on page 100.

1 Make the call to the desired phone number.

2 Key in the digits you want to send as touch tones. The digits are sent one by one to the system.

Tip: For an explanation of touch tones, see the Glossary on page 301.

Answer a call

When you receive a call, the phone gives a ringing tone and the text *Call* flashes on the display. If silent-profile is active, only the keypad and display light will flash.

If the caller can be identified, the caller's name or phone number, and the text *Calling*, will be displayed.

Tip: To change your ringing tone, see 'Attach a ringing tone' on page 120.

1 To answer the call, press .

If you do not want to answer the call, press . The caller will hear the alerting tone change to a busy tone.

To mute the ringing tone of an incoming call, press **Mute**.

Tip: You can answer the call even while using the search or menu functions.

2 To end the call, press .

Manage calls

There are a number of functions you can use during a call. Many of the in-call options are system services.

To access the functions, press **Options** during a call. Some or all of the following in-call options may become available:

Answer - Allows you to answer an incoming call.

Decline - Allows you to decline an incoming call.

Hold/*Activate* - *Hold* allows you to put the current call on hold. To activate the original call again, select *Activate*.

Tip: If the *Forward if busy* is activated to forward the calls, for example, to your voice mailbox, declining an incoming call will also forward the call. See 'Forward voice calls' on page 105.

Tip: If you start making a new call during the current call, the current call is put on hold automatically.

New call - Puts the active call on hold and dials a new phone number.

Send touch tones - Transmits touch tones. See 'Send touch tones during a call' on page 100.

End active call - Ends the active call.

End all calls - Ends both the active and held call.

Contacts - Opens the phone book.

Menu - Opens the Menu.

Mute/Unmute - Switches the microphone of the communicator off or on. If the communicator is connected to a handsfree car kit, *Mute* also turns off the microphone of the car kit.

Swap - Allows you to alternate between two calls, an active and a held call.

Transfer - Enables you to connect two voice calls together and disconnect yourself from both calls. See 'Transfer calls' on page 99.

Conference - If one call is active and another call is on hold, this option merges them into a conference call.

Private - During a conference call, *Private* allows you to converse privately with a selected participant.

Keypad lock

The keypad lock makes accidental key presses ineffective..

When the keypad is locked, you can answer calls normally by pressing . During a voice call, the keypad is unlocked and the communicator can be operated in the usual way. After the call, the keypad is automatically locked again.

The keypad will be unlocked automatically when the communicator is connected to a car kit. When the communicator is removed from the car kit, without being switched off, the keypad will be locked automatically again.

Lock the keypad

Press **Menu** and then the * key within 3 seconds.

Note: While the keypad is locked, the icon and the **Unlock** command are displayed.

Unlock

Press **Unlock** and then the * key within 3 seconds.

Note: When the keypad is locked, calls may be possible to the emergency number preprogramed into your communicator (for example, 911 or other official emergency numbers).

Change profiles

You can use the Profiles key to adjust phone tones for the various operating environments of the communicator. One profile is always in use.

For more detailed information on the various profiles, how to adjust the settings and so on, see 'Profile settings' on page 101.

1 Press the key on the keypad.

2 Press the key again until the selection frame is on the desired profile.

3 To select the profile, press and hold .

Example: If you use the Meeting profile in a meeting, the phone only rings once.

Tip: You can also use the scroll key and **OK** to select a profile.

View help

Most menu functions are provided with a help text, which gives a brief description of the displayed function.

1 Scroll to the menu function about which you want help.
2 Wait for a few seconds. The first page of the help text will appear. The text scrolls automatically. If you want to scroll it manually, press the scroll keys or **More**.
3 To exit help, press **Back**.

Using the menus

Tip: You can access the menu functions even during a call.

The phone offers a set of menu functions that allow you to tailor the phone for your particular use. The menus and submenus can be accessed by scrolling the menu or using the appropriate shortcuts.

Scrolling the menus

1 Press **Menu**.
2 Press either ⌄ or ⌃ to scroll the list of menus until you reach the desired menu.
3 Press **Select** to access the menu. If the menu contains submenus, reach the one you want with either ⌄ or ⌃ and press **Select**.
4 To return to the previous menu level, press **Back**.

To exit the menu without changing any settings and to return to the stand-by mode, press .

Using menu shortcuts

All the menus, submenus and settings are numbered. This number is shown in the upper right corner of the display.

1 Press **Menu**.

2 Key in the index number of the menu you wish to access.

Example: To set the Anykey answer on, first press **Menu** and then press the numbers **3**, **1**, **1**, and **1** in sequence.

Menu structure

The following menu table lists the names of the main menus and their submenus. Some menus are subject to the availability of the service in your area. Third-level menus are not shown.

Menu	Function	Submenus
MENU 1	MESSAGES	1 *Write message*, 2 *Inbox*, 3 *Drafts*, 4 *Sent*, 5 *Cell broadcast*, 6 *Service command editor*, 7 *Voice messages*
MENU 2	CALL LOG	1 *Missed calls*, 2 *Received calls*, 3 *Dialed numbers*, 4 *Clear recent call lists*, 5 *Call duration*, 6 *Call costs*
MENU 3	SETTINGS	1 *Call settings*, 2 *Phone settings*, 3 *Security settings*, 4 *Restore factory settings*
MENU 4	FORWARDING	1 *Forward all voice calls*, 2 *Forward if busy*, 3 *Forward if not answered*, 4 *Forward if out of reach*, 5 *Forward if not available* 6 *Forward all fax calls*, 7 *Forward all data calls*, 8 *Cancel all forwards*
MENU 5	INFRARED	
MENU 6	SIM SERVICES	Only available, if supported by your SIM card.

Messages (Menu 1)

The Short Message Service (SMS) is a system service which enables you to receive and send short messages. Contact your service provider for details.

Write a message (1-1)

In this menu you can write and send a short message.

Inbox (1-2)

Tip: To change the tone of an incoming SMS message, see 'Profile settings' on page 101.

When you receive a short message or picture message, the text indicating the number of messages received and the indicator ✉ will appear on the display and a tone will sound, unless the communicator is set to a silent profile.

A note is also shown when you receive faxes or mail. To read received faxes or mail, you must use the respective applications of the communicator interface.

Tip: You can call the phone number while viewing the message by pressing ☎, twice.

1 Press **Read** twice to view the message, or press **Exit** to view it later.

If you view a message later, press **Menu 1-2**, scroll to the desired message and press **Read** to view the message.

2 While viewing the message, press **Options** to scroll through the list of options and press **Select** at the highlighted option to select it. The available options are:

Delete - Erases the selected message from the memory.

Reply - Opens the editor for a reply. Key in the reply and press **Options > Send**.

Forward - Asks for the number where the message should be forwarded. Enter the number and press **OK** to forward the message.

Edit - Opens the current message in the editor where you can modify the message.

Use number - Copies the phone number from the message and moves it onto the phone display. You can now call the number with .

Details - Shows the sender's name and number, the date and time the message was sent, and the number of the message center.

Drafts (1-3)

In this menu you can view, modify, and send your draft short messages.

Sent (1-4)

In this menu you can view and modify the short messages you have sent.

Cell broadcast (1-5)

This system service allows you to receive SMS messages on topics that you have predefined on the communicator interface. See 'Cell broadcast' on page 245.

For available topics and relevant topic numbers, contact your service provider.

On - Sets the information message reception on.

Off - Turns the information message reception off.

Service command editor (1-6)

In this submenu, you can send service requests, such as activation commands for system services, to your service provider. For more information, contact your service provider.

Tip: These requests are also known as USSD commands.

Voice messages (1-7)

Listen to voice messages (1-7-1)

When you enter this submenu, the phone automatically calls your voice mailbox at the phone number stored in Menu 1-7-2. If required, key in the access code for your mailbox or answering machine when the connection has been made.

If the voice mailbox number has not been saved before, the phone asks for you to save it first.

Note that the voice mailbox is a system service and you may need to subscribe to it first.

Tip: To call your voice mailbox quickly, press and hold 1 ∞.

Voice mailbox number (1-7-2)

In this submenu, you can store and edit your voice mailbox number. A voice mailbox can be a system service or your personal answering machine. For more information and for the voice mailbox number, contact your service provider.

Call log (Menu 2)

Missed calls (2-1)

Lists calls that you have missed.

Note: The communicator only registers missed calls when the phone is switched on and within system coverage.

Tip: *Received calls* and *Missed calls* functions are system services which work only in systems that allow you to view the caller's phone number.

Received calls (2-2)

Lists calls that you have received.

Dialed numbers (2-3)

Lists calls that you have dialed.

Clear recent call lists (2-4)

Select which calls you want to erase. The options are *All*/*Missed*/*Dialed*/*Received*.

IMPORTANT: The phone numbers are erased without warning. You cannot undo the operation.

Call duration (2-5)

Shows the duration of your outgoing and incoming calls, and allows you to reset the timers.

Last call duration (2-5-1)

Shows the duration of the last outgoing or incoming call in hours, minutes or seconds, for example, 0:02:15.

All calls' duration (2-5-2)

Shows the total duration of all calls made and received with any SIM card that you have used with the communicator.

Received calls' duration (2-5-3)

Shows the total duration of calls received with any SIM card that you have used with the communicator.

Dialed calls' duration (2-5-4)

Shows the total duration of calls made with any SIM card that you have used with the communicator.

Clear timers (2-5-5)

Asks for the lock code and then resets all timers. You cannot undo the reset operation.

Note: The actual time invoiced for calls and services by your service provider may vary, depending upon system features, rounding-off for billing, taxes and so on.

Call costs (2-6)

This system service allows you to check various call costs. The costs are shown in charging units or units of currency that you have set in **Menu 2-6-3-2**. The call cost is shown for each SIM card separately. For these settings you need the PIN2 code, the PIN code, or no code at all, depending on your service provider. Contact your service provider for more information.

Last call cost/units (2-6-1) & All calls' cost/units (2-6-2)

Last call cost/units (2-6-1) shows the cost or units of the last, or current call. All calls' cost/units (2-6-2) shows the total cost or units of all calls made with the current SIM card.

Whichever menu you choose, press **Options** to access the following three submenus:

Clear cost counters (2-6-3-1)

Resets all cost counters. You cannot undo the reset operation.

Show cost / Show in units (2-6-3-2)

You may select whether the call costs and call cost limits will be displayed in currency or charging units. Contact your system service provider for the prices of charging units.

The display shows the option that is currently not selected. To select the option shown on the display, press **Select**. If you selected *Show cost*, key in the charging unit price. Use * or # to insert a decimal point. Next, enter the currency name.

Call cost limit (2-6-3-3)

This function allows you to limit the total costs of outgoing calls to a specified number of charging units or units of currency that you have set in **Menu 2-6-3-2**.

To turn the limit on, select *On*. Key in the cost limit in charging units or currency units. If you define the limit in currency units, you can press * or # to insert a decimal point.

After the limit has been turned on, the number of remaining units is shown on the display when in stand-by mode. When all units have been used, no calls can be made.

To turn the limit off, select *Off*.

Note: In some systems, calls to the emergency number programed into your communicator (for example, 911 or other official emergency numbers) may be made even if there are no charging units left.

Note: The actual time invoiced for calls and services by your service provider may vary, depending upon system features, rounding-off for billing, taxes and so on.

Settings (Menu 3)

Call settings (3-1)

Anykey answer (3-1-1)

When selected, you can answer an incoming call by pressing any key on the keypad, except , , , or the **Mute** selection key.

Automatic redial (3-1-2)

When this function is selected and you call a number that is busy or does not answer, the phone will attempt to call the number until the call is connected. The maximum number of redials is 10.

Press to end the call attempts.

1-touch dialing (3-1-3)

When selected, you can dial phone numbers stored in the 1-touch dial locations by simply pressing and holding the assigned 1-touch dial key. See '1-touch dials' on page 104 for more information.

Call waiting (3-1-4)

Call waiting is a system service. Contact your operator for subscription. For more information see 'Answer a waiting call' on page 99.

Choose *Activate* to enable call waiting, *Cancel* to disable call waiting, or *Check status* to show whether call waiting is active and for which call types.

Send caller ID when calling (3-1-5)

This system service allows you to set your phone number either to be displayed or to be hidden from the person you are calling. *Set by system* resets the phone to the default setting, *On* or *Off*, that you have agreed upon with your service provider.

Summary after call (3-1-6)

If you set this function to *On*, the phone will briefly display the duration and cost (system service) after each call.

Line for outgoing calls (3-1-7)

If your system supports this service, you can have two phone lines in your communicator. You can select which line you want to use for making calls. For more information, see 'Line selection page' on page 112.

Phone settings (3-2)

Clock (3-2-1)

You can select whether the time is shown on the display.

Cell info display (3-2-2)

When this function is selected, the phone will indicate when it is used in a system cell based on Micro-Cellular Network technology. MCN technology increases the capacity of wireless networks in urban areas. The setting will remain in effect even if the SIM card is changed or the phone is switched off.

Welcome note (3-2-3)

You can write a message of up to 44 characters which appears on the display when you switch on the phone.

System selection (3-2-4)

The system to which you are connected can be selected either automatically or manually.

If you select *Automatic*, the phone automatically selects one of the wireless systems available in your area. Outside your home system service area, the communicator will select one of the systems that has a roaming agreement with your home system.

If you select *Manual*, the phone will show a list of available systems and you can select the system you wish to use if this network has a roaming agreement with your home system service operator. If no such agreement is in force, the text *No access* will be displayed and you must select another system.

Security settings (3-3)

The purpose of the security system is to prevent unauthorized use or altering of important settings. In most cases, activating or changing the security options requires the appropriate access code. See 'Security' on page 230.

Note: When security features which restrict calls are in use (for example, call restrictions, fixed dialing, or system lock etc.), calls may be possible to certain emergency numbers in some systems (for example, 911 or other official emergency numbers).

PIN code request (3-3-1)

The options are *On* and *Off*. See 'Security' on page 230.

Call restrictions (3-3-2)

This system service allows you to restrict incoming calls to, and outgoing calls from your phone. You need a restriction password to be able to use this function. Contact your system service provider to get a restriction password.

The options are: *Outgoing calls*| *International calls*| *International calls except to home country or region*| *Incoming calls*| *Incoming calls when roaming*| *Cancel all restrictions*.

Closed user group (3-3-3)

This system service allows you to set the communicator to accept calls to and from a selected group of people. For details on creating a user group and activating this service, contact your system service provider.

Preset - Resets the phone to use a user group the SIM card owner has agreed upon with the system service provider.

On - Uses a particular user group. Calls can be made to or received from the members of the selected group only.

Off - Calls can be made and received in the normal way. You can use this option only if you are entitled to do so.

Lock if SIM changed (3-3-4)

You can protect your phone against unauthorized use with the lock code. To do this, enter your lock code and select the option *Yes*. For details, see 'Security' on page 230.

Change of access codes (3-3-5)

In this submenu, you can change the lock code, the PIN code, the PIN2 code and the restriction password. See 'Security' on page 230.

The access codes may only include the digits 0 to 9.

Lock system (3-3-6)

In this submenu, you can lock the communicator. Press **Select** and enter your lock code. The communicator locks immediately. When your communicator is locked, you can make emergency calls to predefined numbers using the cover phone. You can also answer incoming calls and make emergency calls using the Telephone application. All other actions are blocked. Even if you remove and replace the battery and switch on the phone, the communicator will remain locked. To unlock the communicator, press **Unlock** and enter the lock code. For more information on locking and other security options, see 'Security' on page 230.

Tip: You can also press **Menu** and **#** to enter your lock code.

IMPORTANT: The default lock code is **12345**. For security reasons, it is imperative that you change the lock code. Keep the code secret and in a safe place, separate from the communicator. For information on changing the lock code, see section 'Security' on page 230.

Restore factory settings (3-4)

You can reset some of the menu settings to their original values. You need the lock code for this function. This function will not affect stored phone numbers and names, access codes, earpiece volume setting, call timers, cost counters, selected application tones or SMS messages.

Forwarding (Menu 4)

Tip: The icon is shown in the stand-by mode when you have activated the *Forward all voice calls*.

This system service allows you to direct your incoming voice calls to another phone number when you do not want to be disturbed, or when the phone is switched off or outside the system coverage area. For details, see 'Forward voice calls' on page 105.

The options are: *Forward all voice calls*| *Forward if busy*| *Forward if not answered*| *Forward if out of reach*| *Forward if not available*| *Forward all fax calls*| *Forward all data calls*| *Cancel all forwards*.

Select *Activate* to set the forward setting on if allowed by the system, *Cancel* to set the setting off. Select *Check status* to check whether the forward is activated or not.

If you select *Forward if not answered* or *Forward if not available*, you can also select *Set delay* to choose a delay time before the call is forwarded. The options are *5 sec*| *10 sec*| *15 sec*| *20 sec*| *25 sec*| *30 sec*.

Infrared (Menu 5)

If you want to receive data from another device via infrared, use this function. Make sure that the infrared port of the communicator faces the infrared port of the other device and press **Activate**. For more information, see 'Activate the infrared connection' on page 90.

Note: Your communicator is a Class 1 Laser product.

SIM services (Menu 6)

In addition to the functions available in the phone, your SIM card may provide additional services that you can access in the Menu 6. Menu 6 is shown only if it is supported by your SIM card. The name and contents of the menu depend entirely on the services available.

For availability, rates and information on using the SIM services, contact your SIM card vendor, for example your system service provider, service provider or other third-party vendor.

You can set the phone to show you the confirmation messages sent between your phone and the network when you are using the SIM services by selecting the option *Yes* within the menu 3-2-5 (Confirm SIM service actions).

Note: Accessing these services may involve sending a text message (SMS) or making a phone call for which you may be charged.

3. General information

This chapter explains how the communicator operates and how to supply power to the communicator. For information on first start-up and setup of your communicator, see the Getting Started chapter in this user guide.

Communicator display

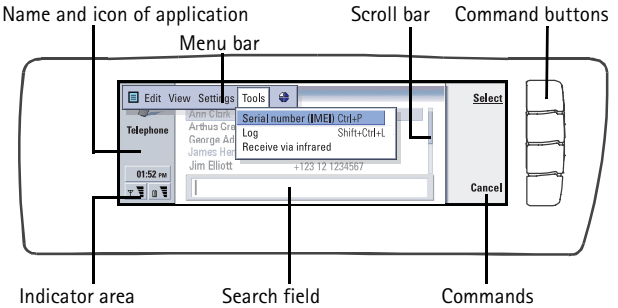

Figure 16

The communicator interface is turned on by opening the cover. The application that was active the last time the communicator was used is shown on the display.

When you close the cover, the communicator interface turns off its display and saves all data.

The commands always correspond to the command buttons, as shown in Figure 17.

Tip: When a command is dimmed, it cannot be used.

The applications are run in the middle of the display. The indicators show application and system-related information.

To move around a selected frame and select items, use the Arrows key at the lower right-hand corner of the keyboard.

Where there is a search field at the bottom of the display, you can search for items by using the keyboard to enter text into the search field.

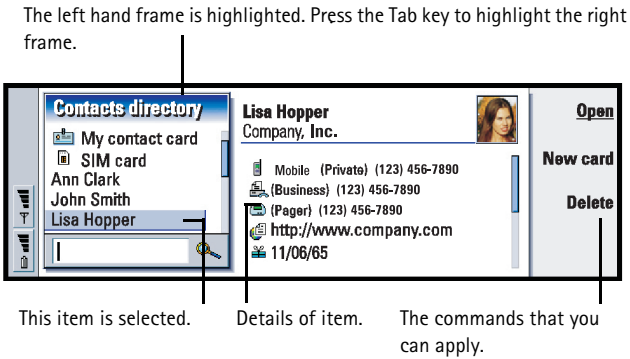

Figure 17

If there is more than one frame in the view, the selected one is always highlighted. You can move from one frame to another by pressing the Tabulator key.
See Figure 18.

Dialogs and pages

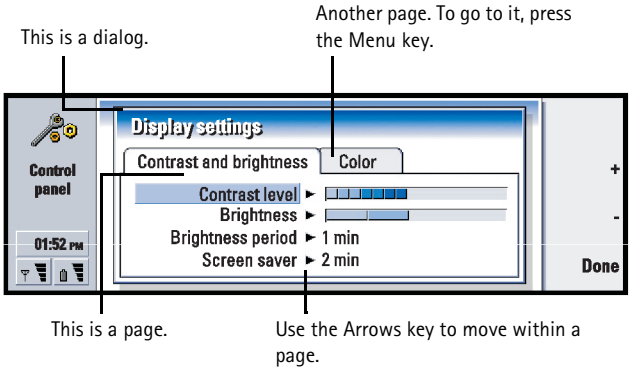

Figure 18

An example of a dialog which contains several pages is shown in Figure 18.

Indicators

The application icon and application name in the indicator area display the application you are in at the moment, as shown below.

The icons that appear on the Inbox/Outbox indicator rows change according to the application and current situation. The battery level and signal strength indicators are the same as shown on the phone display when the phone is on.

Application icon
Application name
Inbox/Outbox
Time
Signal strength and battery level

Call status

- A voice call with the handsfree off. The loudspeaker and microphone are muted.

DATA - An open data connection, see the Internet chapter on page 149.

FAX - The communicator is receiving or sending a fax.

- The communicator is trying to establish an infrared connection.

- An infrared connection has been established.

- The infrared connection is obstructed.

- The communicator is connected to a PC.

- The communicator is connected to a PC via cable.

- The communicator is being used as a fax modem.

Meeting - The communicator is in a profile, in this case in the 'Meeting' profile. See 'Telephone Settings' on page 100.

22:30 - Time. You can adjust time in the Clock application. See page 227.

Inbox/Outbox

- The inbox indicator informs you that you have received a fax, short message, or mail.

- The document Outbox contains unsent messages. See 'Outbox' on page 179.

Battery level

- The battery is low and you should recharge it.

- The battery is charging. The bar scrolls until the battery is fully charged. The outlet plug icon indicates that the communicator is connected to an external power source.

- The battery is fully charged. All the four bars are displayed.

Signal strength

- The communicator is connected to a wireless system. When all the four bars are shown, the wireless signal reception is good. If the signal is weak, make sure the antenna is up. You can also try to improve the reception by moving the communicator slightly or by using it in the handsfree mode.

 - The phone is on, but it is outside system coverage.

- The phone is off. You cannot make or receive calls, and you cannot receive messages with any of the communications applications (SMS, data, fax, or mail).

Communicator keyboard

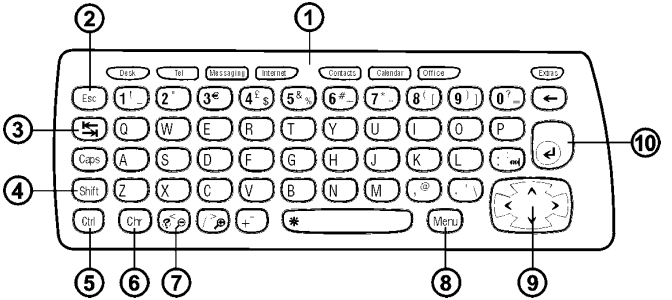

Figure 19

In addition to the normal character and number keys, the keyboard has a number of special keys, as shown in Figure 19.

① Application buttons

The buttons at the top of the keyboard start the corresponding applications or open application groups. The buttons are: **Desk**, **Telephone**, **Messaging**, **Internet**, **Contacts**, **Calendar**, **Office** and **Extras**.

To use the applications

When the cover is opened, the application that was active the last time the communicator was used, is shown on the display.

To switch to another application or application group, press the corresponding application button. You can even do this during a call. You need not exit an application before starting another. All inactive applications remain in the background until you activate them again.

Note: When you open the WWW application, all other applications are closed to reserve memory for WWW.

To send or receive calls or messages with any of the communications applications, remember that the phone must be switched on and in a service area with adequate wireless signal strength.

Note: Information need not be specifically saved. When you press **Close**, switch to another application, or close the device cover, the Nokia 9290 Communicator saves all data.

Create a keyboard shortcut to a preferred link or application

Some applications buttons like Office, Desk, and Extras do not open applications directly. However, you can specify an application in an application group as the preferred application or a link on Desk as the preferred link and access it directly from the keyboard. You can open a preferred application by clicking Ctrl + the application button.

To make an application preferred, open an application group (such as Office), press the Menu key, and select *Tools* > *Preferred application*. Select the application from the list. See the example in the column adjacent to this paragraph.

Example: If you make the Document application preferred inside the Office application group, you can press Ctrl+Office within any application to open Document.

To make a link preferred, open Desk, press the Menu key and select *Tools* > *Preferred link...* Select the link from the list.

② Escape (Esc)

To cancel an action, you can either press the Esc key or **Cancel**. Pressing the Esc key also cancels and dismisses a dialog, and dismisses an information note.

③ Tabulator or Tab

You can use the Tab (Tabulator) key to move from one frame to another. When writing or editing documents, the Tab key moves the cursor to the next tab stop.

④ Shift

The Shift key is used together with letter keys to insert capital letters and used together with number keys to insert special characters. The Shift key does not need to be held down when pressing a key: pressing first Shift and then a letter or number key generates an uppercase or special character.

In combination with the Control key and a particular letter key, the Shift key generates shortcut commands. See 'Shortcuts' on page 82.

In writing and editing text, the Shift key and the Arrows key can be used to select text, see 'Shortcuts' on page 82.

⑤ Control (Ctrl)

Pressed together with other keys on the keyboard, the control key generates shortcut commands which can be used in viewing and writing text. See 'Shortcuts' on page 82.

⑥ Character (Chr)

Press the character key to open a character table where you can select special characters. Press the character key together with characters and commands that are shown in green color on the keyboard to access them. Press the character key, keep it pressed down and tap a letter key to access accented and special letters.

You can also use the character key with other keys to zoom the view and activate or deactivate infrared.

⑦ Help ( )

For online help at any time, press the key on the communicator keyboard. For more information, see 'Online Help' on page 39.

⑧ Menu

Pressing the Menu key reveals options. The options available depend on the application you are in. Use the Arrows key to move to the desired option and press **Select**.

The chosen option only affects the item that is currently selected, open, or being sent. The Menu may also contain the generic option *Settings*.

Tip: Using the menu key, the *Zoom* option is sometimes available. It allows you to magnify the view on display.

⑨ Arrows key

The Arrows key can be used to move the cursor or selected frame.

Tip: In the WWW browser application, use the Arrows key to move a pointer around the display. See page 163.

⑩ Enter

When the cursor is shown, pressing Enter moves the cursor to the beginning of the next text line or adds a new line. Enter can also be used to open folders, applications, and documents. When a command is underlined, you can press **Enter** instead of the command button. When information notes are shown, press **Enter** instead of **OK**. In options and settings, when a value can be toggled, you may press **Enter** instead of **Change**.

Connectors

The Nokia 9290 Communicator can be connected to a variety of devices. See Figure 20.

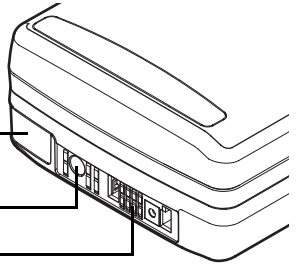

Figure 20

Use the infrared port for connecting to a compatible PC, printer, digital camera, or another communicator.

General features

Select several items at once

Where multi-selection is available, you can select several items at once. The selected items are highlighted. The commands you use affect all the selected items. Multi-selection works in most lists.

To select items one by one, scroll to the item and press and hold down **Ctrl**. While pressing down Ctrl, scroll to each item you want to select and press space bar.

To select a larger set of consecutive items, paint the items by pressing and holding Shift + using the ^ and v arrows on the Arrows key.

Multi-selection is cleared when you press the Arrows key.

Special characters

The character key Chr on the communicator keyboard is used to create characters that are not included on the keyboard. The character key can always be used when you are able to enter characters from the keyboard.

Note: Some special characters may get distorted when sent out of your communicator. This happens, for example, with mail or short messages, and is because of differences in system protocols.

Insert special characters from the character table

1 Press and release the Chr key. A dialog opens.

2 Press the Menu key to select the page with the character you want to insert.

3 Select the special character or characters, then press **Insert**.

Insert special characters from the keyboard

There are two ways to insert special characters directly from the keyboard.

To insert a character printed on the keys in green, press and hold the Chr key and simultaneously press a key with a special character printed in green.

To generate special characters by using certain unmarked keys, for example, "a" and "e", do as follows:

1 Press and hold the Chr key and simultaneously press a letter key. The first special character matching the letter key is displayed.

2 Continue to hold down the Chr key and press the letter key again. The second special character is shown in place of the first one, and so on, until the first character is shown again.

3 Press **Shift** or the Caps lock key to change the case of the special character.

Shortcuts

Tip: Many shortcuts are also displayed next to menu commands in applications.

There are several shortcuts you can use in the document applications. The shortcuts vary depending on the application used. The following table lists some of the available shortcuts:

Shortcut	Function
Ctrl + *a* Ctrl + *c* Ctrl + *x* Ctrl + *v* Ctrl + *z*	Selects all Copies selected text Cuts selected text Pastes selected text Undoes (the last action)
Ctrl + *b* Ctrl + *i* Ctrl + *u*	Applies bold Applies italics Applies underlining
Ctrl + *t* Ctrl + *d*	Full screen mode (if available) Deletes files, messages, shortcuts and other items.
Ctrl + *p*	Print or Properties
Ctrl + *n* Ctrl + *o* Ctrl + e	Creates a new file Open Close
Ctrl + *s* Ctrl + Shift + s	Save Save as
Chr + left/right arrow (on Arrows key)	Moves the cursor to the beginning or end of the line
Chr + up/down arrow (on Arrows key)	Moves up or down a page

Shortcut	Function
Chr + Ctrl + up/down arrow (on Arrows key)	Moves to start or end of document
Shift + Ctrl + left/right arrow (on Arrows key)	Selects the previous or next word
Shift + right/left/up/down arrow (on Arrows key)	Selects one text character or line
Shift + Chr + up/down arrow (on Arrows key)	Selects text, page by page, inside a document

Tip: For information on the shortcuts available for the WWW application, see the Internet section of this guide.

Save files

When you close a new file for the first time, or want to save it, you will be asked to enter a name for the file and to identify a folder in which it should be saved.

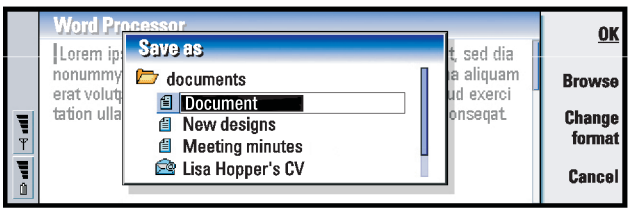

Figure 21

The following commands become available in the dialog:

OK - Confirms the name of the document and saves the document.

Browse - Opens a dialog in which you can browse for a location where you save your file.

Change format - Opens a list of formats. You can now change the format of the document being saved.

Cancel - No saving is done and the dialog is closed.

Note: If you want to quit the application, but you do not want to save the file, press the Menu key and select *File* > *Discard changes*, then close the file.

Send documents

In addition to sending messages in the Messaging application, you can also send documents out of the communicator in the applications where the Send function is available on the Menu list.

As a fax - You can send the document as a fax.

As a mail - You can send the document as a mail message.

As a short message - You can send the document as a short message.

Via infrared - You can send the document via infrared.

Note: When you open a document, the document is opened in the appropriate editor or viewer. The commands vary according to the editor/viewer.

Search for text

You can search for text strings in the applications where this function is available on the Menu list.

1 Press the Menu key and select *Edit* > *Find...*. A dialog opens.

2 Type the text string in the search field and press **Find**.

3 Once a text string match is found, it is highlighted.

To find out if there are more of the same text strings in the document, press **Find next**.

4 To refine the search, press **Options**. A dialog opens where you can define options of *Case sensitive* or *Match whole word*.

Replace text

1 Press the Menu key, and select *Edit* > *Find...*.

Press **Replace**.

2 Type the text string to be replaced in the *Find:* field and the text you want to replace it with in *Replace with:* field.

3 For more search and replace options press **Options**. In the Find options dialog you can select a case sensitive search or a search only matching whole words and not parts of a word. You can also choose to replace all occurrences of a text in the document without further confirmation.

4 Press **Replace** or **Replace all**.

Tip: Replace all is available only if you have selected *Yes* in the Replace all dialog.

Check spelling

Note: You can spell check only English text and words.

You can check words and text for spelling in the applications where *Spell check...* is available on the Menu list. To be able to use this function, you first need to install the Spell checker from the CD-ROM found in the sales package of your communicator. For details, see 'Install software from the CD-ROM' on page 89.

1 Press the Menu key and select *Tools* > *Spell check...*. If the Spell checker comes across a word it does not recognize, a dialog opens.

2 You can type in the correction in the correction field. Or, move to the *Suggestions* field and press the Tab or Enter keys to open a list of suggestions.

3 Select a word from the list of suggestions, then press **Replace** to accept the correction or suggestion.

Tip: You can select individual words to spell check. Otherwise the whole text is searched and spell checked.

4 If during step 2 you want to add an unrecognized word to the dictionary, press **Add**.

Print

You can print various items, such as documents, pictures, faxes, mails, and short messages.

Refer to the user guide of the printer for detailed safety instructions on the printing device.

To view or modify the page setup, press the Menu key and select *File* > *Printing* > *Page setup...*

To preview the document before printing it, press the Menu key and select *File* > *Printing* > *Print preview.*

To print a document or a file,

1 Press the Menu key and select *File* > *Printing* > *Print...*. A note appears, showing the print range, connection type, and printer used.

2 Press **Print**. A dialog opens. To change the printing options, press **Options**.

3 To preview what you are about to print, press **Print preview**. A dialog opens.

To define page setup, press **Page setup**.

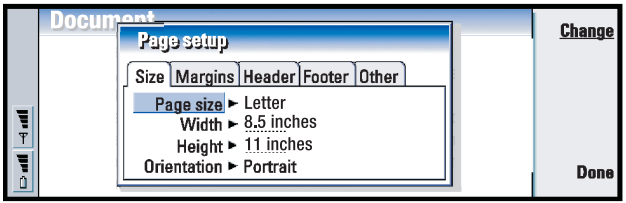

Figure 22

When printing via infrared, make sure that the infrared port of the communicator faces the infrared port of the printer. Keep the infrared connection clear. If the connection is obstructed for too long, for example, if something is moved between the infrared sensors or the communicator is moved, printing is interrupted. For details on infrared connection, see page 90.

Log

Log contains information about the communication history of your communicator. The log shows all, or certain types of communication events in chronological order.

With log files you can monitor your communications, use the information to create or complete contact cards, or reply directly to the sender in the log.

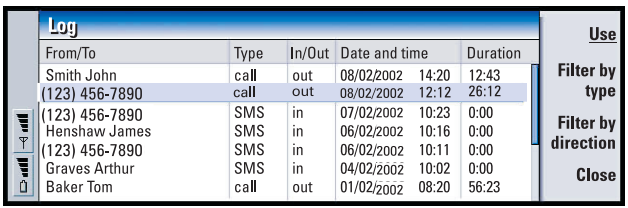

Figure 23

Tip: The shortcut to open the log is Shift+Ctrl+L.

Tip: To change the categories *Date and time* and *Duration* to *Subject* and *Status*, press < and > on the Arrows key.

Tip: A communication type can have one of the following delivery statuses: *pending*, *delivered*, *failed*, *sent*, *not sent*, and *scheduled*.

Access the log

You can access the log from the Menu of several applications.

Press the Menu key and select *Tools* > *Log*.

Make use of an individual communication event

1 Choose a log event and press **Use**. The command buttons change.

2 You can now do the following: send a fax or short message to the contact, call the contact, or add the contact to your Contacts directory. Check the command buttons for available options.

View only certain communication types

1 Press **Filter by type** to choose a communication type you want to view.

Press **Filter by direction** to choose whether you want to view communications originated by you or by the remote party.

2 Select from the options.

3 Press **OK**.

Erase the contents of the log

Log events remain in the log database for only a set number of days after which they are automatically erased to free memory on your communicator. To redefine the number of days, press the Menu key and select *Tools* > *Log duration...*.

1 To erase some or all the contents of the log, press the Menu key and select *File* > *Clear log...*.

2 Type in the date. All log events with an earlier date will be removed from the log.

3 Press **Clear**.

Install software from the CD-ROM

The applications and files on the communicator's CD-ROM are ready to be installed or moved to the communicator. Proceed with installation as follows:

1 Ensure that you have installed PC Suite on your computer. You can find this program on the CD-ROM in the sales package.

2 Insert the CD-ROM into the CD-ROM drive of your computer.

3 Either: Connect your communicator to your computer using the adapter cable supplied in the sales package.

Or: Prepare the communicator and the computer for an infrared connection. For more information, see 'Activate the infrared connection' on page 90.

4 If the CD-ROM user interface does not open automatically, double-click the file 'Nokia9290.exe' in the CD-ROM file structure.

5 Select a program you want to install from the CD-ROM user interface and click 'Install'.

Note: Remember to install applications in the same language as your communicator.

Use a memory card to gain more space for the different applications and files on the CD-ROM.

Note: For information on the installable applications, see the Software on CD-ROM Guide on the CD-ROM.

Tip: For more information about PC Suite, see the PC Suite Guide on the CD-ROM.

Tip: See the Add on Applications Guide for information on other software available for your communicator.

Tip: To activate the infrared, you can also press the Menu key and select *Tools* > *Receive via infrared*.

Activate the infrared connection

1 Make sure that the infrared port of the communicator faces the infrared port of the other device.

2 To activate the infrared connection, press Chr + (the key with the infrared symbol; this key is on the right-hand side of the keyboard, next to the Enter key).

3 To end the infrared connection, press Chr + again.

4. Desk

Desk is an application where you can create and manage links to your favorite documents, applications, or third-party software.

Main view

When you first use Desk, the main view has at least the following links by default: an Internet shortcut to Internet setup, a document named 'Start here!', and a WWW link to the official Nokia web site.

You cannot select more than one link at a time. You can delete Desk links only in the Desk application.

Tip: Your favorite links can be, for example, certain WWW pages, WAP services, applications, documents, and photo albums.

Figure 24

Tip: You can change the order in which a link appears. Select the link, press the Menu key, and select *File* > *Move*. Using the Arrows key, move the link across the display and press **Place here**.

Add a link

1 Select the program, program group, or other item for which you want to add a shortcut to Desk.

2 Press the Menu key and then select *File* > *Add to Desk*.

Tip: To view and change the icon, label or parameters of a link, select the link, press the Menu key, and then select *File* > *Properties...*.

Tip: You can start writing a note quickly in any application or even during a phone call by pressing the Desk application button twice.

Write notes

1 Press **Write note**. A simple text editor opens.

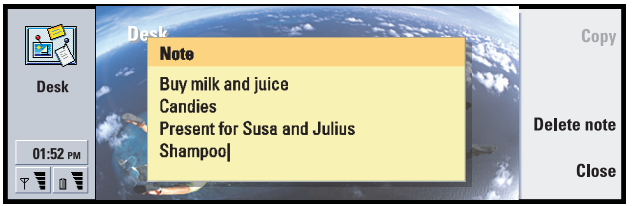

Figure 25

2 Write the note.

3 Press **Close** to save the document. The note will now appear in the main view of Desk.

Change the background image

You can also customize the background image of the Desk main view.

1 Press the Menu key and select *Tools* > *Settings*.... A dialog opens.

2 Define the following:

Background image: The options are *Yes*/*No*.

Image file: Press **Change** to browse for an image. Press **Preview** to view the image.

3 Press **Done**.

Note: The image file you choose as a background image should be scaled to appear equal to or bigger than the screen size. For details, see 'Imaging' on page 241.

5. Telephone

You can use the Telephone application to make and receive phone calls, handsfree calls, or conference calls. You can record and redirect calls, use voice mailboxes, and manage settings and profiles.

Open the Telephone application by pressing the Tel application button on the keyboard.

To make phone calls,

- the phone must be switched on,
- the communicator must have a valid SIM card inserted, and
- you must be located in a service area of the wireless system.

Some of the operations explained here can also be made using the cover of the communicator.

Note: Opening or closing the cover does not affect active phone calls. If you have made a voice call using the Telephone application and you close the cover, you can continue the call with the cover phone.

Tip: You can also switch to other applications during a phone call.

Make a call manually

1 Type the telephone number in the field at the bottom of the main view.

2 Press **Call**. Use the handsfree mode to speak and listen to the communicator from a short distance when the cover is opened, or close the cover and continue with the cover phone.

Tip: To disable the handsfree mode, press the Menu key, select *Settings* > *Call...* > *Audio when cover opened* and press **Change** to switch the handsfree mode *Off*.

Call a number in the telephone directory

When you have no active voice calls, the Telephone application main view shows the Telephone directory. The default directory is in the communicator memory. From the top of the telephone list, you can select directories contained in the SIM card and - if inserted - directories contained in a memory card. Contact cards that do not contain any phone numbers appear dimmed.

1 Select a contact in the directory either by scrolling or by using the search field.

2 Press **Call**. If the contact has more than one phone number, a list opens, listing all the contact's phone numbers. Choose a number from the list and press **Call**.

Tip: To redial the last dialed number you can also press the shortcut keys Chr+Tel.

Tip: You can zoom in and out to either make the text more readable or fit more entries on display. Press the Menu key and select *View* > *Zoom in* or *Zoom out*.

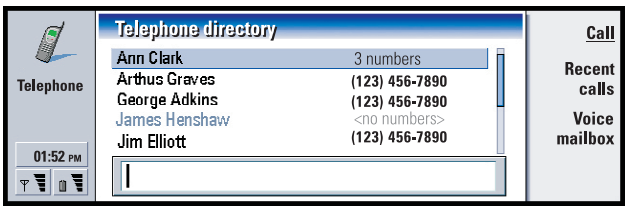

Figure 26

Call a number in a recent calls list

Tip: A shortcut to open the *Missed calls* view is Ctrl + Tel.

1 In the main view, press **Recent calls**. The *Dialed calls* dialog opens. If you have new missed calls, the *Missed calls* dialog opens.

2 To see calls from one of the other lists, select a command button on the right of the display. For example, to see a list of received calls, press **Received calls**.

3 Select a number from the list and press **Call**. Now you can either leave the cover open to use the handsfree option or close the cover and continue the call normally.

Answer a call

Figure 27

1 When you receive a call and the communicator cover is open, a note about the incoming call appears. To answer the call, press **Answer** or close the device cover and answer the call via the cover phone.

2 If you do not want to take the call, press **Decline**. To mute the ringing tone, press **Mute tone**.

Note: You cannot have two active calls at the same time unless you are in a conference call. A current call is automatically put on hold when you answer a new incoming call. For information about conference calls, see 'Make conference calls' on page 98.

Tip: You can create a new contact card by using a telephone number listed in **Recent calls**. In the main view, press **Recent calls**. Select a call, press the Menu key, and *Edit* > *Add to contacts*.

Tip: To adjust the volume of the speaker during an active call, use the Arrows key: pressing > increases the volume, pressing < decreases the volume.

Tip: The caller's name appears in the note if the telephone number is sent with the call, and if the caller's number is listed in your Contacts directory.

Call and create a voice mailbox

Voice mailboxes work just like an answering machine. You can use them to store incoming messages of missed calls. Many service providers furnish a voice mailbox service with the SIM card. If your SIM voice mailbox does not have a number, you can type it yourself. Note that you are still required to contact your service provider for a phone number to use with this voice mailbox.

Tip: Another way to call your voice mailbox is to press and hold the 1 key on the front cover of the phone.

To call your voice mailbox, in the main view of the Telephone directory, press **Voice mailbox**. See Figure 26. If you have more than one voice mailbox, a dialog prompts you to choose a mailbox from a list.

You can also create additional voice mailboxes as follows:

1 Contact your service provider for a number to use with an additional voice mailbox.

2 Press the Menu key and select *Settings* > *Voice mailboxes*....

3 When the *Voice mailboxes* dialog appears, press **Add**. Type a name and number.

Record a call

You can record the conversation during a call. Once a call is in progress, press the Menu key and select *Call* > *Record* to open the Recorder application. For more information on the Recorder application, see page 240.

Note: Obey all local laws governing recording of calls.

Make a new call during a call

You can have an active call and a call on hold at the same time. You can switch between the two calls. This situation applies whether you made or received either of the calls.

The display can show a maximum of three calls, although you can have only two calls connected at the same time. See Figure . To answer the *WAITING* call you must first end either the *ON HOLD* or the *ACTIVE* call.

1 If you already have an active call and a call on hold, drop one of the calls or merge them into a conference call.

2 Press **New call** and make the new call. The previous call will be put on hold.

3 To switch between calls, use the Arrows key. The active call is framed with a dark line. The command buttons change according to the status of the selected call. For example, a call on hold can be changed to an active call by highlighting it with the Arrows key and then pressing **Activate**.

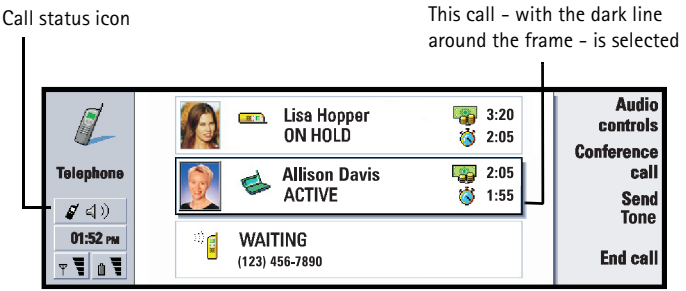

Figure 28

4 To end a call, select the call you want to end with the Arrows key and press **End call**.

Make conference calls

The conference call is a system service. Contact your service provider to check if this service is available. In a conference call, you and up to five persons can hear each other simultaneously. The display shows a conference call as a single call.

1 Make a call.

2 Once the called person has answered, make a call to a second person by pressing **New call**. The first call is put on hold.

3 Wait until the second person answers the call.

4 To place both persons into a conference call, press **Conference call**. The display shows a single conference call. Press **Conference commands** to list the two participants of the conference call.

5 To include another person, press **New call**. The conference call is put on hold. When the person answers the call, press **Conference call**. This new person is included in the conference call.

6 To include further persons, repeat step 5.

Tip: You can close the cover and continue the call via the cover phone after you have included all participants in the conference call.

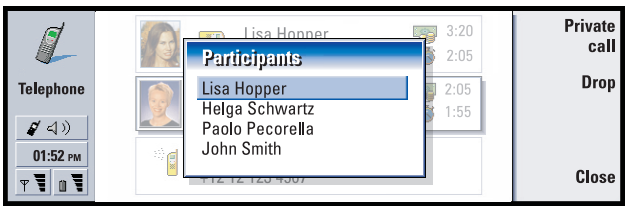

Figure 29

Remove a conference call participant

1 Press **Conference commands**.

2 Select the caller from the list of participants and press **Drop**. See Figure 29.

Talk privately with one of the conference call participants

1 Press **Conference commands**.

2 Select a participant from the list and press **Private call**. The call is now split into two: the conference call is on hold and the one-to-one call is active.

3 Once you have finished the private conversation, you can return to the conference call by pressing **Conference call**.

Transfer calls

Call transfer is a system service where you connect two calls together and disconnect yourself from both calls. Contact your service provider to check if this service is available.

When you have one call on hold, and another call active or an outgoing call alerting, press the Menu key and select *Call* > *Transfer* to connect the calls together.

Note: You may be charged for some of the cost of the transferred call; contact your service provider for details.

Note: You can only transfer voice calls. Fax, data, or conference calls cannot be transferred.

Tip: To view log files of all calls, press the Menu key and select *Tools* > *Log*. The log shows all calls, both incoming and outgoing, voice and data.

Answer a waiting call

To know that you have a call waiting, and to be able to answer it, you must first subscribe to the call waiting system service. Call waiting is selected in system services. For more information, see page 105.

1 When you receive a new call while you already have an active call, you hear a sound and see a note informing you of a new incoming call.

2 Press **Answer**. The active call is put on hold.

Send touch tones during a call

Dual tone multi-frequency tone system is used by all touch-tone telephones. Touch tones assign a specific frequency, or tone, to each key so that it can easily be identified by a microprocessor. Touch tones allow you to communicate with voice mailboxes, computerized telephony systems, etc.

To send touch tones during a call, you have two methods:

- Type the digits with the communicator keyboard. No menu or command button selection is needed before starting to type the digits. Each keystroke generates a touch tone which is transmitted while the call is active.
- Alternatively,

  1 Press **Send tone**. The touch tones sequences you have stored in the contact card of the person you are talking with are shown. For information on how to store touch tones sequences, see page 122.

  2 Select a touch tones sequence. You can edit the sequence. If there are no stored sequences, you can type a new touch tones sequence into the input field.

  3 Press **Send tone**.

Tip: Besides the numbers **0 – 9**, you can also use the characters **p**, **w**, *****, and **#** when sending touch tones. For information on these characters, see 'Store touch tones' on page 122.

Note: You can send touch tones during a conference call by typing the digits with the communicator keyboard, but you cannot access stored touch tone sequences.

Telephone Settings

In the Telephone main view, press the Menu key and select *Settings* to select one of the following settings.

Profile settings

The profiles are used for grouping the settings of different operating environments of the communicator. In the settings you can modify the profile features. One profile is always in use.

To change the profile in use, press the Menu key. Use the Arrows key to select the Profiles icon at the right-hand end of the menu bar and a new profile from the menu list.

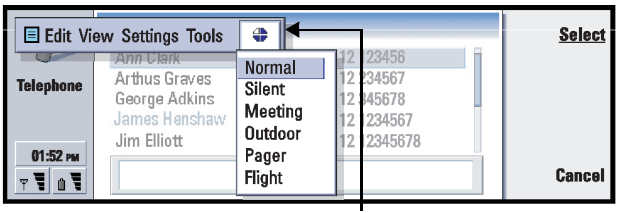

Figure 30

To select and modify a profile, press the Menu key and select *Settings* > *Profiles*....

The profiles provided with your communicator are:

Normal - The default profile of the communicator.

Silent - You can set this profile on when you want all the alert tones to remain silent (except Clock and Calendar alarms - see 'Note' on page 102).

Meeting - You can specify how the communicator operates when you are in a meeting, such as setting the volume of the tones low.

Outdoor - You can specify how the communicator operates when you are outdoors.

Pager - You can set this profile on when you want the communicator to act as a pager. The default settings are that there is no ringing tone and that you get an alert tone for received short messages.

Flight - Sets the Flight profile on. For more information, see 'Flight profile' on page 113.

Note: If you have turned on the Clock alarm or an alarm for timed entry in Calendar, it remains on in all profiles, including Silent.

Create a new profile

1 To create a new profile, press the Menu key, select *Settings* > *Profiles...*, and press **New**. The current values of General profile are copied to the new profile.

2 To modify the settings of any of the profiles, highlight a profile name and press **Edit**. A dialog with four pages opens, as shown in Figure 31. For each of the pages, define the following:

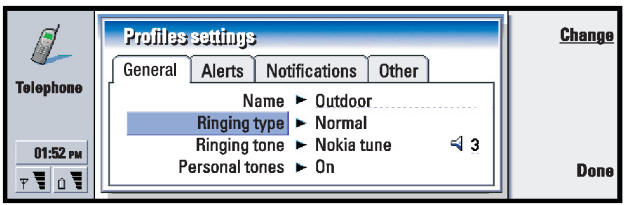

Figure 31

General page

Name - Type the name of the profile. Some profiles cannot be renamed.

Ringing type - Choose the ringing type for the ringing tone. The options are *Normal*/*Ascending*/*Ring once*.

Ringing tone - Define the sound for the incoming call. Press **Change** to choose from sound files provided with the communicator or to browse for other sound files, if available. To record a tone, see page 240.

Ringing tone, line 1: and *Ringing tone, line 2* - Define the sound for incoming calls on two alternate lines, if available. Press **Change** to choose from sound files that have been provided with the communicator or to browse for other sound files, if available.

Personal tones - Define whether the personal ringing tone of callers are used. The options are *On*/*Off*. For information about attaching a ringing tone to a contact card, see 'Attach a ringing tone' on page 120.

Alerts page

Clock alarm, *Calendar alarm*, *Received SMS*, and *Received fax* - Choose a specific sound for each of these situations to alert you. Highlight an option, then press **Change** to choose from sound files provided with the communicator or browse for other sound files. To adjust the volume of an alarm, press **Volume**.

Notifications page

Keyboard tone - Adjusts the keyboard sound. The options are *Off*/*Quiet*/*Loud*.

Phone keypad tone - Adjusts the keypad sound. The options are *Off*/*Quiet*/*Loud*.

Notification tones - Switches the notification tones between *On*/*Off*. Notification tones are tones made by the communicator alerting you to an error (such as an incorrect key press) or to a situation (such as a low battery).

Other page

Play ringing tone for - Allows you to choose which incoming calls will make a ringing sound. The options are *All calls*/*VIP group only*/*None*. If you choose *VIP group only*, only the calls coming from someone defined as a VIP will ring; see page 129 in the Contacts chapter. All other calls alert on the display with a message, but will not ring.

1-touch dials

Tip: See also '1-touch dialing' on page 52.

1-touch dialing is a quick way to call frequently used numbers. You can assign 1-touch dials to eight phone numbers. An example is shown in Figure 32.

1 Press the Menu key and select *Settings* > *1-touch dials...*.

2 To assign a number to a 1-touch dial location or to change an existing number, press either **Add number** or **Change number**. You see a list of contacts from the contacts database in your communicator's internal memory.

3 Highlight a contact card and press **Select**. When a contact card without phone number is highlighted, the **Select** command is dimmed.

Location number 1 is reserved for calling your default voice mailbox; see page 108 for more information. You cannot change its value. For more information on voice mailboxes, see page 96.

Figure 32

System services settings

Note: System services may not be provided by all operators. If services are provided, you may have to subscribe to them.

Information about the status of these services is stored in the system. Therefore, the current settings are not shown until you request the information from the system as follows:

1 Press the Menu key and select *Settings* > *System services*.

2 For example, to check the setting of *Forward if busy*, select *Call forwarding...*, highlight it with the Arrows key, then press **Check status**. While the communicator is making a request to the system, a query note is shown on the display.

3 After a successful request, the new status now appears in the settings list.

Tip: To change voice call forwarding or restriction settings, the phone must be switched on.

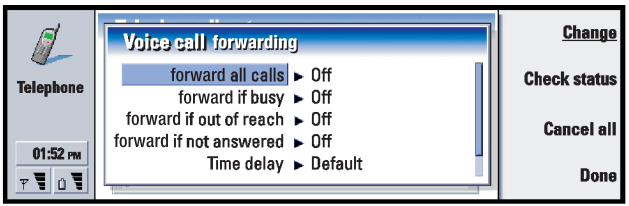

Figure 33

Forward voice calls

Voice call forwarding allows you to direct your incoming voice calls to another phone number. This is also known as call forwarding.

1 Press the Menu key and select *Settings* > *System services* > *Call forwarding...*. A dialog opens.

2 Choose forward options:

Forward all calls - All incoming calls are forwarded.

Forward if busy - Incoming calls are forwarded when you are engaged in another call.

Forward if out of reach - Incoming calls are forwarded when the phone is switched off or outside the system service area.

Forward if not answered - Incoming calls are forwarded if you do not answer them within a certain time period.

Time delay - Applies to the option *Forward if not answered*. *Time delay* allows you to choose the time period after which the call is forwarded. You can set the delay to *Default*/*5 seconds*/*10 seconds*/*15 seconds*/*20 seconds*/*25 seconds*/*30 seconds*.

Forward if not available - In a single action, this option turns on forwarding of *Forward if busy*/*Forward if out of reach*/*Forward if not answered*.

3 Press **Change**, and select one of the following options:

To: - Type the number to which you want to forward the calls.

Default voice mailbox - Calls are forwarded to your voice mailbox. If you have more than one mailbox, you must choose one from a list shown to you. See page 108 for more information.

Off - Turn off the forward.

Restrict voice calls

To restrict voice calls you use the voice call restriction system service. To use call restrictions or change the restriction settings you need a restriction password, which you can obtain from the service provider.

1 Press the Menu key and select *Settings* > *System services* > *Call restrictions*.... The *Voice call restrictions* dialog opens.

2 Choose one of the available options:

Outgoing calls - Calls cannot be made.

Incoming calls - Calls cannot be received.

International calls - Calls cannot be made to other countries or regions.

Incoming calls when roaming - Calls cannot be received when you are outside your home country or region.

International except to home country - If you have enabled international roaming with your service provider, you cannot make international calls, except to your home country or region.

Note: Calls described here as international may in some cases be made between regions of the same nation.

If you subscribe to the alternate line system service, voice call restriction applies only to the *Selected line*.

Note: If voice call restriction is in use, calls to emergency numbers, such as 911, can still be made.

To cancel all call forwards or restrictions, press **Cancel all**.

Other system services

1 Press the Menu key and select *Settings* > *System services* > *Other services...*

2 Other system service settings contains the following options:

System selection - Allows you to change the way a system is selected and also register to another system. You can set the system selection to either *Automatic* or *Manual*. In automatic system selection, the communicator selects the most appropriate system. In manual system selection, the communicator searches for available systems and presents you with a list of systems found; you can then select which system to use.

Call waiting - Press **Change** to choose *On* or *Off*. For a brief description of call waiting, see 'Answer a waiting call' on page 99.

Send own caller ID when calling - Determines whether your number is hidden or presented to the person you are calling. Press **Change** to see the options *Default*/*On*/*Off*.

Voice mailbox settings

For information on voice mailboxes, see page 96.

1 Press the Menu key and select *Settings* > *Voice mailboxes*.

2 To change the settings of a voice mailbox, highlight it and press **Edit**. A dialog with two pages opens. See Figure 34.

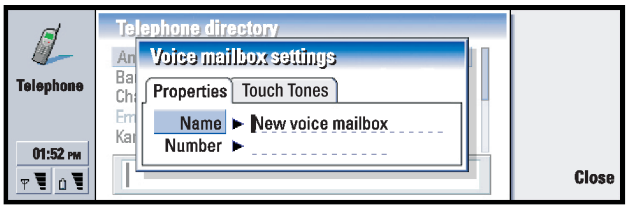

Figure 34

Properties page

Define the following options:

Name - Type a descriptive name for the mailbox.

Number - Type a number for the mailbox obtained from the system service.

Note: The type of voice mailbox determines whether you can edit both of these fields. For example, the name and number of a SIM voice mailbox cannot be edited.

Touch tones page

Touch tones - Define touch tones for a voice mailbox not provided with your SIM card. Each tone is represented by a character. Press **Add** to type characters and store them with a label, such as touch tones2. You can also select No touch tones. If you are editing a voice mailbox provided with your SIM card, this page is dimmed.

Call settings

1 Press the Menu key and select *Settings* > *Call...*.

2 Define the following options:

Audio when cover opened - Determines whether the handsfree mode is selected automatically when you open the cover. Press **Change** to toggle *On*/*Off*.

Automatic redial - When this setting is set *On* and you call a number that is busy or does not answer, the communicator attempts to call the number until the call is connected. Press **Change** to toggle *On*/*Off*.

Advanced settings

1 Press the Menu key and select *Settings* > *Advanced...*.

2 Define the following options:

Call costs page

If your system supports the call charging display service, use this page to change call charge settings and to view cost counters. Your communicator will prompt you for your PIN2 code. If this page is dimmed, your SIM does not support this system service.

Tip: To see the phone serial number, press the Menu key and select *Tools* > *Serial number (IMEI)*. Your service provider may ask you for this information.

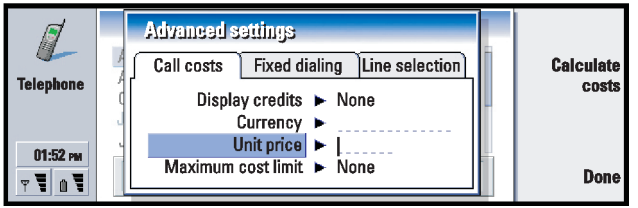

Figure 35

Display credits - Determines the information about call costs shown in the call display during a call. The options are *No*/*Used*/*Remaining*. Credits are amounts of money, measured either in units or currency.

Currency - Type a maximum of three characters to indicate your choice of currency. You can type numbers or letters. For example, you can type 'USD' for American dollars. This field is used with *Unit price* below and with *Show in currency*.

Unit price - If you use currency to measure call costs, type a decimal number for the price of each charging unit. You must also complete the *Currency* field above.

Maximum cost limit - You have two options: *No limit* or a value that you can define in the field. You can define the limit in either units or in currency. If you are in a call when the cost limit is reached, the call ends. You cannot make any more calls. You see a note on the display before and after the call limit is reached.

Press **Calculate costs**: The information in this dialog is:

Last call: - The cost of the last call made.

All calls: - The cost of all calls made since the cost counter was reset.
See Figure 36.

Remaining credits - If you have defined a limit in *Maximum cost limit* this field displays the amount of money or units remaining.

Press either **Show in units** or **Show in currency** to choose how you want call costs to be displayed in your communicator. 'Units' is a system measurement, such as 21 units. 'Currency' is shown in the characters you have typed in the *Currency* field.

Press **Clear costs** to clear the cost counters. You are required to enter your PIN2 code.

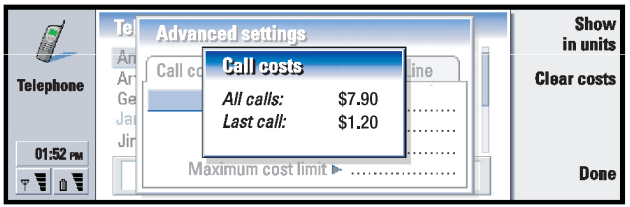

Figure 36

Note: The actual invoice for calls and services from your service provider may vary, depending upon system features, rounding-off for billing, taxes, and so on.

Fixed dialing page

Fixed dialing is a system service which allows you to restrict your calling to a limited set of numbers stored in the SIM card. The service is offered by some service providers. When the fixed dialing service is active, the SIM phone book list shows only numbers in the fixed dialing list. You still have access to the communicator's Telephone directory, but you cannot call those numbers. If your SIM card does not support this system service, this page is dimmed.

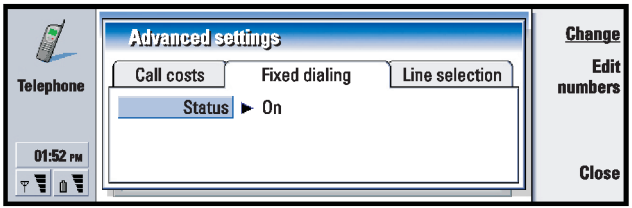

Figure 37

If you want to change the settings or view the fixed numbers, you are required to enter your PIN2 code. When the service is set to *On*, press **Edit numbers** to add, modify, or delete numbers.

You are required to enter names and numbers into the fixed dialing list.

Note: When fixed dialing is set to on, calls may be possible to certain emergency numbers in some systems (such as 911 or other official emergency numbers).

Line selection page

If you need two lines (phone numbers) for your communicator, you must subscribe to the alternate line system service and check that this feature is activated in your communicator. If this service is unavailable or you do not use it, the Line selection page appears dimmed.

Each line can have different settings for some of the Telephone features.

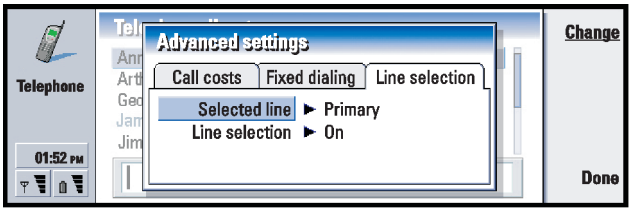

Figure 38

The options on this page are:

Selected line - Defines the line used for outgoing calls. The options are *Primary*/*Alternate*. Fax calls always use the primary line. If *Block line selection* is active (see the next paragraph) you cannot change the line in use.

Block line selection - Allows you to block the changing of the selected line. The values are *On*/*Off*. Changing the value requires you to enter your PIN2 code.

Note: Block line selection option is only provided by some service providers.

Flight profile

The flight profile prevents you from accidentally turning on the phone in an aircraft. To select the flight profile:

1 In the Telephone main view, press the Menu key, scroll across the menu bar to the Profiles icon , then highlight *Flight*.

2 Press **Select**.

With the flight profile active, you may do tasks which do not require the use of wireless system. For example, you can read previously downloaded mail, write mail, notes, short messages, faxes, or update your calendar. Once you have left the aircraft, turn off the flight profile by pressing **Exit profile**. Then you can turn on the phone by pressing , and your short messages, faxes, and mail will be sent automatically.

When the flight profile has been selected, emergency calls must be made from the phone (close the communicator cover):

1 Press . The phone display will read *Flight profile is active.*

2 While the note is visible (for approximately five seconds) you can dial an emergency number preprogramed into your communicator, for example, 911.

3 Press .

IMPORTANT: Never use the phone when in an aircraft. If the aircraft personnel allow use of the communicator interface, you MUST activate the flight profile. The flight profile will allow use of the communicator interface only and will prevent use of the phone. Be aware that all communications applications require use of the phone.

6. Contacts

You can use the Contacts application to create, edit, and manage all contact information, such as phone numbers and addresses.

Start the Contacts application by pressing the Contacts application button on the keyboard.

The main contacts database is in the communicator's memory. You can also store contacts in the SIM card and in databases on an attached memory card.

You can synchronize your contacts with Microsoft Outlook, Lotus Notes, and Lotus Organizer programs when you connect your communicator to a compatible PC. For information on synchronizing your contacts with a PC, see the PC Suite Guide on the sales package CD-ROM.

Contacts directory

The main view of Contacts contains two frames.

Figure 39

Tip: You can toggle between the two frames with the Arrows or Tab keys.

In the left-hand frame, there is a list of contacts in the currently open contacts database. At the top of the list there is your own card and other available contacts databases. Below the list there is a search box for finding entries.

In the right-hand frame there is the currently selected contact card.

Contacts databases can be located in the communicator's internal memory, on a memory card, or on a SIM card. A memory card may contain several contact databases. Contact data is shown for one contacts database at a time. For example, to see contacts stored on the SIM card, use the Arrows key to scroll down the list to the SIM card and press **Open**.

An individual contact card contains the information of one person. A group contact card contains more than one contact person. You can see the name of a group contact card in **bold** font in the list.

Contacts are listed by name. You can change the sort order of the list. See 'General page' on page 128.

You can create more than one contacts database in a memory card. For more information see page 130.

Note: You cannot delete your own business card, the internal contacts database of the communicator, the contacts database on a SIM card, a read-only memory card contacts database, or contacts in a read-only contacts database.

Make a contact card

1 In the Contacts directory main view, with the left-hand frame highlighted, press **New card**. A new card is created using the default template.

2 To make a new contact card using a particular template, press the Menu key and select *File* > *New card*. You are prompted to choose a template from a list.

3 When the contact card opens, enter information into the various fields. You can fill in the information on your own business card using the same method. See an example in Figure 40.

Note: The title of the P.O. Box field is only displayed when editing the fields. To display the words 'P.O. Box' before the P.O. Box number after editing type, for example, 'P.O. Box 123' in the field.

4 To save your contact card, press **Done**.

Note: The 1-touch dial icon next to a contact card telephone number means that you have defined a 1-touch dial for that telephone number with the Telephone application.

Figure 40

Open a contact card

1 In the Contacts main view, with the left-hand frame highlighted, select a card.

2 Press **Open** to open the card in a full display view.

Move or copy contacts from a SIM card

1 In the Contacts main view, with the left-hand frame highlighted, select the SIM card and press **Open**.

Tip: To copy or move a range of contacts, select, the contacts, press the Menu key and select *File* > *More options* > *Copy to* or *Move to*.

2 Press the Menu key and select *File* > *More options* > *Copy to* or *Move to*.

3 Choose the Contacts database as the target directory and press **Select**.

Search for a contact card

Tip: If you cannot find the contact in this database, go to the top of the Contacts directory list, and open either the SIM card or the memory card database. You may have stored your contact in one of these other locations.

1 In the search field under the Contacts directory list, enter characters which match the beginning of the name of the contact. For example, to find Manfred, enter M or Ma or Man. The names of contacts which match the characters you entered are displayed.

2 Using the Arrows key, select a contact and press **Open**.

Notes on using the search field

A search checks the most important fields in a contact card. The matching of search criteria is limited to the beginning of words. For example, to search using the characters 'Ann' finds 'Annabel' but not 'Joanne'.

Example:
john.carr@florida.edu or http://florida.edu/~john.carr

The search also checks the contents which follow the following characters: '**.**' (period) or '**/**' (forward slash) or '@' ('at' symbol) or '**~**' (tilde).

Change fields in a contact card

Add a field

You can add fields to a contact card to suit your own circumstances. For more information on specific fields, see 'Information on fields' on page 119.

1 Open a contact card.

2 Press **Add field**. A list opens, showing fields you can add to the card.

3 Using the Arrows key, select a field and press **Select**.

Rename a field

You can rename fields to suit your contacts. For example, after adding three new *Tel* fields, you could rename them to *Tel (Business)*, *Tel (Private)*, and *Tel (Car)* respectively.

1 Open a contact card.

2 Select the field you want to rename.

3 Press **Rename field**. A list of alternative names for the field opens. If you are not allowed to rename the field, the **Rename field** command button is dimmed.

Information on fields

Company, *First name*, *Last name*, *Suffix*, *Title*, *Middle Name*, *Job title*, *Birthday* - You can have only one of each of these fields.

Telephone number fields - Storing a '+' (plus) character before the country or region code allows you to use the same phone number abroad. Enter mobile phone numbers in this field to send short messages.

Country/Region - Enter a country or region name. If you want the address of a contact to be displayed in the format of the country or region, use the same country or region names as listed in the option *Default country* on page 129.

Note: Some extra types of field, such as *Job description*, may appear only if they exist in an imported contact card.

Tip: If you want to delete a field on all cards based on the same template, it is simpler to delete it from the template attached to the card. See 'Create or modify templates' on page 121.

Attach a ringing tone

Tip: To play a ringing tone, use the File manager application to open a ringing tone file. See 'Open a file' on page 222. The default ringing tones are not displayed in the File manager.

You can set a specific ringing tone for each contact card. When that contact calls you, the communicator plays the chosen ringing tone (if the telephone number is sent with the call).

1 Open the contact card.

2 Press the Menu key and select *Card* > *Ringing tone*. A dialog showing the current ringing tone of this contact is displayed.

3 Press **Change**. A list of default sounds is displayed.

4 Select a sound and press **Select**. Press **Browse** to search for other sound files stored in the communicator.

Note: To use personal ringing tones, this feature must be active in the profile that you are using. For more information, see 'Create a new profile' on page 102.

Insert a picture

Tip: To define your default folder, go to Control panel and open the Default folder application.

Tip: Alternatively, to insert a picture, press the Menu key and select *Card* > *Insert picture*.

1 Open the contact card.

2 Press **>** on the Arrows key to select the picture frame on the right-hand side of the card. Press **Insert picture**. A dialog displaying the contents of the default folder opens. Press **Browse** to search for image files, if necessary.

3 Select a file and press **OK**. The image is opened in an image viewer. The framed area will be inserted into the contact card. Move the area with the Arrows key and enlarge or reduce the frame size with the **+** and **–** buttons. Press **Insert**. For more information, see 'Imaging' on page 241.

Create or modify templates

Templates define a set of fields which the communicator uses when creating or displaying a contact card. The default template provides a typical range of fields. You can modify the default template. You can also create custom templates with fields suitable for a particular group of people, such as those living overseas.

Tip: Templates do not apply to contact cards in the SIM card, because the layout of a SIM contact card is fixed.

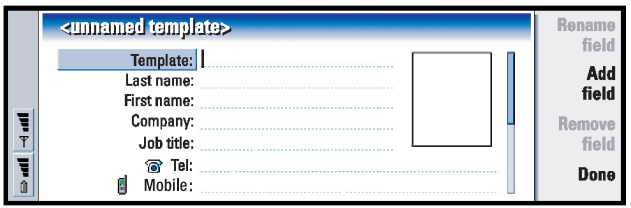

Figure 41

1 Press the Menu key and select *Tools* > *Card templates*. A list of templates opens.

2 Either press **New** to create a new template, or move to an existing template in the list and press **Open**. A contact card template opens.

3 Edit the template. You can change the name of the template and add or remove fields.

After you have created a contact card, the card and its template are linked as follows:

- In a template, if you add or change fields or their labels, changes affect all contact cards created from that template. If a field is deleted from the template, the field is deleted from all the cards, except where the field contains data.
- In a card, if you remove fields that belong to a template, the empty field will still be there the next time you open the card.

Store touch tones

Touch tones are the tones you hear when you press the number keys on the phone keypad. Touch tones allow you to communicate with voice mailboxes, computerized telephony systems, etc.

You can store a sequence of touch tones for a contact card. When you make a call to the contact, you can retrieve the sequence. It will save you from re-entering the characters.

1 Open or create a contact card.

2 Press **Add field**. A list opens.

3 Scroll down the list to *Touch tones* and press **Select**. The touch tone field is inserted in the contact card.

4 Enter a touch tone sequence in the touch tone field.

If you need a phone number-touch tone combination number for a contact, store the phone number followed by the touch tone sequence in the *Tel* field. You can use the following non-numeric characters:

Character	Function
***#**	The asterisk and hash symbols may be used if the touch tone service requires them
p	Inserts a pause of approx. 2 seconds before, or between, touch tone characters
w	If you use this character, the remaining sequence is not sent until you press **Send tone** again during the call.

Create contact groups

You can create contact groups to save time by sending e-mails and short messages to all members of the contact group in one action.

1 With the Contacts directory main view displayed, press the Menu key and select *File* > *New group...*. A blank group contact card opens.

2 Enter a name for your group.

3 To add contacts to the group, press **Add member**. A list of contact cards and groups opens.

4 Select a contact and press **Add**. Note that you can add another contact group to a group.

5 To attach a picture for the group, press > on the Arrows key to move to the picture frame. Alternatively, press the Menu key and select *Group* > *Insert picture*. A dialog displaying the contents of the default folder opens. Select a file and press **OK**, or press **Browse** to search for a picture file.

6 To save the group contact card, press **Done**.

An example of a contact group with members is shown in Figure 42.

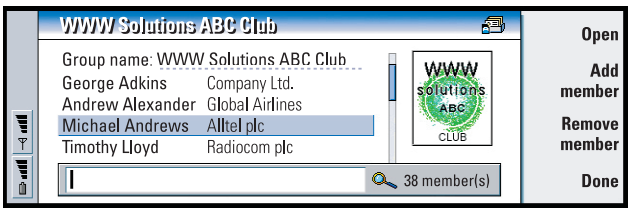

Figure 42

The company name, if it also exists in the original contact card, appears to the right of the name of the contact. Select **Open** to view the details of any of the group members.

Change group memberships for a contact or a group

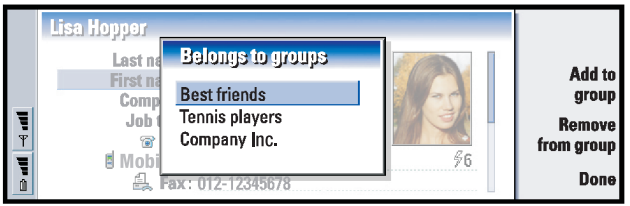

Figure 43

1 To view or change the groups to which a contact or a group belongs, open the contact card, press the Menu key, and select *Card* or *Group* > *Belongs to groups*. A list opens, showing memberships for the contact or group.

2 To add the card to a new group, press **Add to group**. A list of contact groups in the current database opens.

3 Select a group and press **Add**. Your contact card or group contact card is added to the group.

4 Press **Done** to save your changes.

Create a SIM contact card

You can view the SIM directory by selecting SIM card in the Contacts directory. The contacts in your SIM card are displayed with SIM location numbers, as shown on the next page:

Figure 44

1 In the SIM card main view, press **New contact**. A dialog opens, as shown in Figure 44. If fixed dialing is active, the SIM contents show only your fixed dialing numbers. For more information on fixed dialing, see page 111.

2 The memory location shows the first free location number. To change the location, press **Change**.

3 Type a name for the contact.

4 Type a number for the contact.

Note: The length of the name and the phone number you can enter is defined by the SIM card. For example, some SIM cards allow a maximum of only fourteen characters.

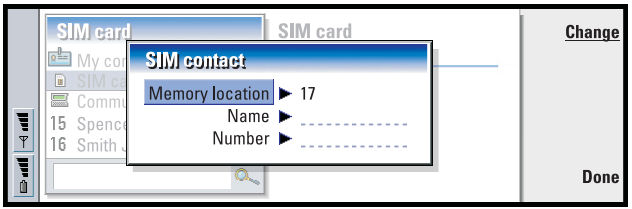

Figure 45

SIM directory options

You can sort the contents of the SIM directory in alphabetical order or by memory location. Press the Menu key and select *View* > *Sort by* > *Name*, or *Sort by* > *SIM location*.

To see a summary of the usage of the SIM database, press the Menu key and select *File* > *Properties*. If fixed dialing is active, you can see only information about fixed dialing numbers.

Send a contact card as a business card

Tip: You can send only one business card in each message you send; however, you can send it to many recipients.

When you send or receive a contact card between the communicator and other devices, the term 'business cards' is used. A business card is a contact card in a format suitable for transmission, usually vCard format. You can add received business cards to your Contacts directory, where they become contact cards.

1 In the Contacts directory main view, select the card you want to send.

2 Press the Menu key and select *File* > *Send*. In the *Send* submenu, make a further choice of media: *As a mail*/*As a short message*/*Via infrared*. You may have other sending options if you have installed additional software. An editor dialog opens, depending on the sending medium you have chosen, as shown in the example below. The contact card you want to send has now become a 'business card'.

Tip: PC mail and the short message service are explained in the 'Messaging' chapter, starting on page 175. If a contact card is sent as a short message, the card is sent in the *Sending format* defined on page 129.

Figure 46

3 To choose who receives the sent card messages, press **Recipient**.

4 If you are sending via the short message service, the images are left out by default to reduce call charges. If you want to include the image in the message, you must change the setting. See 'Send as a short message page' on page 129.

Tip: If you change the setting to include images in the message, do not forget to change it back after you have sent the message to reduce call charges.

5 If you are about to send via infrared, make sure you activate the receiving of infrared in the other device first.

6 Press **Send**.

Receive a business card

When you receive a business card from another device, you are alerted by a notification message. This message appears automatically on the display, in any application. Follow the screen prompts to view the business card.

Note the following information about the contents of received card(s):

A field is displayed if it is recognized; if not, it is ignored.

Audio data, in a supported format, is set as the personal ringing tone of the contact (if you choose to add the card to your Contacts directory).

To add the received card to your Contacts directory, press **Add to Contacts**. The card is converted to contact card format. To decline the card, press **Delete**.

Settings

Press the Menu key and select *Tools* > *Settings*, then select a page, as follows:

General page

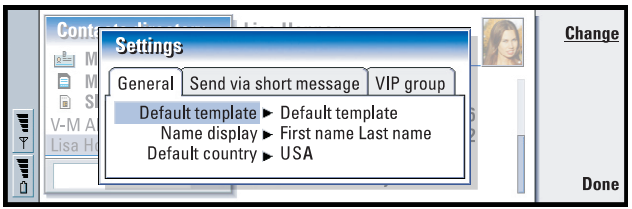

Figure 47

Default template - Allows you to define which template is used when creating a new contact card. When you press **Change**, you can choose a template from a list of templates used with the current database.

Name display - Allows you to define the display order of names in the Contacts directory main view. The values are *First name Last name*/*Last name, First name*. The names will be displayed in the same order in the Telephone application and the cover phone.

Default country/region - Concerns the country or region whose address format is used when viewing contact card addresses in various displays in the communicator. By default, the address format of the country or region you enter in the *Country/Region* field of a contact card is used. If you do **not** enter information in the *Country/Region* field, the communicator uses the address format of the *Default country/region*. Each country or region has a predefined address format. Press **Change** to see a list of countries and regions.

Send as a short message page

Sending format - Allows you to define the format used when sending a business card via the short message service. The values are *Compact*/*vCard*. *Compact* is more widely supported but the number of fields sent is more restricted. Use *vCard* format if you know the receiving device understands *vCard* format. Using *vCard* format, you can send all fields except *Note* and *touch tones*.

Example: The Nokia 9290 Communicator and most of the major e-mail clients support the vCard format.

Send contact card pictures **–** Allows you to control the attaching of pictures when sending business cards in *vCard* format via the short message service. The options are *No*/*Yes*.

VIP group page

VIP group - Allows you to nominate an existing contact card group to be treated as *VIP group*. You can restrict the ringing of incoming calls so that only calls from a member of a *VIP group* will ring, the others will not ring. See Profile settings, 'Other page' on page 104.

Create a new contacts database

Contacts databases are created on a memory card.

1 Press the Menu key and select *File* > *More options* > *New database*.
2 Type the name of your database, then press the Enter key. See Figure 48. Your new database is added to the Contacts directory as a folder.
3 To add a new card to the new database, select and open the database in the Contacts directory, then press **New card**. To copy or move contacts to the new database, select existing contacts from the Contacts directory, press the Menu key, and select *File* > *More options* > *Copy to* or > *Move to*.

Tip: To see a summary of the usage of the database, press the Menu key and select *File* > *Properties*.

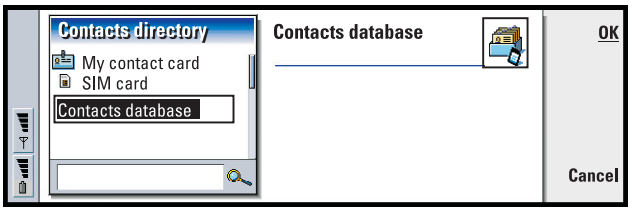

Figure 48

Note: If you have a read-only memory card, you cannot make changes to the contacts or databases on that card.

7. Calendar

In the Calendar application, you can create and check your scheduled events, appointments, anniversaries, and birthdays. You can also list things to do and set alarms to all of the calendar entries.

You can synchronize your calendar and tasks with Microsoft and Lotus programs when you connect your communicator to a compatible PC. For information on synchronization, see the PC Suite Guide on the CD-ROM.

Calendar entries

There are four types of entry that you can store in the Calendar application:

- Appointment entries are the basic entries in your calendar.
- Event entries are related to the whole day, not to a specific time of day. Event entries do not appear in the Weekly time schedule.
- Anniversary entries are repeated annually on the same date. Use Anniversary entries for annual reminders of important dates, such as birthdays or celebrations.
- Task entries are for writing down lists and things to do. These tasks can be prioritized and organized into task lists. Tasks can also have deadlines.

Example: Use appointment entries for meetings and business lunches.

There are seven different views to view entries. Press **Change view** to choose a view. For more information about different views, see 'Views' on page 138.

Tip: You can use the standard clipboard command shortcuts Ctrl + X and Ctrl + V to cut entries and paste them to a different place.

Create new calendar entries

There are two ways to create calendar entries:

- Start typing your entry. As you enter characters, Calendar opens the default entry dialog of the current view.
- Press the Menu key and select *File* > *New entry*. Select the entry you want to create. The options are: *Appointment...* , *Event...* , *Anniversary...* , or *Task...*. This is the way to create a new calendar entry when you do not want to use the default entry type for the particular view.

Tip: To send a calendar entry to reserve a time in other device calendars, move to the date that contains the entry and select the entry with the Arrows key, press the Menu key and select *Send* > *As a short message* or *Via infrared*.

Tip: To change the default values of an entry details dialog, press the Menu key and select *Entry* > *Default settings*.

Define information in a calendar entry

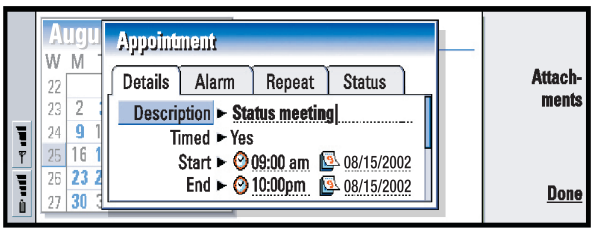

Figure 49

Tip: To see how attachments are added to an entry, see page 138.

Note: Day, event, anniversary, and task entry all have slightly different entry dialogs. The following descriptions of each dialog page list all the possibilities.

Details page

Description - The description of the entry.

Timed - Specifies whether a day entry is timed or untimed. 'Timed' means that the entry has a specific start time, end time, and duration. 'Untimed' means that the entry happens on a particular date, but at no specific time. If you select *No*, you may have to define the date for the day entry in the field below. If you select *Yes*, you must define the starting and ending time.

Tip: An untimed entry is displayed with a icon.

Date - The date of the entry.

Start - The time or date when the entry starts, depending on the entry type.

Display year - Displays the start year of the anniversary, the number of years that have passed since the start year, or no year information. The options are *Starting year*|*In number of years*|*None*.

Example: The start year may be a person's year of birth, and the number of years since the start year may be a person's age.

Duration - The duration of the entry. If you change the value in the *Start* and *End* fields, this field is updated.

End - The time when the entry ends.

Priority - The priority of a task. The options are *High*|*Normal*|*Low*.

Task list - The task list to which the task entry is connected.

Due date - The deadline of a task.

Start warning - The days before the due date when a task starts being shown in today's entry list.

Tip: You can set an alarm for a task entry only if you have also set a *Due date*.

Alarm page

Set alarm - Specifies whether an alarm is set for the entry.

Time before - The time when an alarm set for a timed day entry will go off.

Alarm time - The time when an alarm set for an untimed entry will go off.

Days before - The number of days before an entry when an alarm will go off.

Repeat page

On this page you can determine whether and when you want an entry to be repeated:

Repeat type - The repeat type for the entry. The options are *No repeat*/ *Daily*/ *Working days*/ *Weekly*/ *Monthly by day*/ *Monthly by date*/ *Yearly by day*/ *Yearly by date*.

Example: If your club has a meeting which takes place on the first Monday of every month, you can set the entry to recur accordingly by selecting *Monthly by day*.

Note: Define *Repeat type* first since the choice of options in the rest of the fields depends on what you have selected.

Repeat on days - The days on which the entry is repeated. Use the Arrows key to go to a day you want to select and press **Select**. You can select more than one day at a time. See Figure 50.

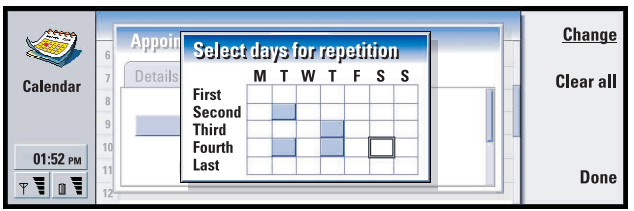

Figure 50

Repeat on dates - The dates on which the entry is repeated. Use the Arrows key to go to a date you want to select and press **Select**. You can select more than one date at a time. See Figure 51.

Figure 51

Repeat interval - The time period between repeats.

Repeat indefinitely - Frequency of the repetition. The options are *Yes* / *No*.

Example: To define an entry that is repeated *Daily* with two days between every repeat, define "every 3 days" in *Repeat interval*.

Note: It is still possible to remove or edit a single entry even if the entry is repeating. If you edit an entry and change any options except the repeat options, a selection list appears. You then choose how you want the change to take place from the following options: *All occurrences*/ *Only this occurrence*/ *This and future occurrences*/ *This and past occurrences*.

Status page

On this page you can define a background color and status for the entry, as well as specify whether you want to synchronize the entry:

Color marking - Allows you to define the color and letter for the entry symbol, which appears after the text of the entry in all views. When you check your calendar entries in the Weekly time or Year schedules, the color is used for the bar indicating the entry. The letter is used to filter Calendar entries in the Year schedule.

Tip: Color is a handy way to categorize entries - you see more easily how your time is reserved.

Tentative - Whether an entry is confirmed or not. A tentative entry is indicated with icon next to the entry text.

Example: If you are not sure if an entry will take place, you can mark it as *Tentative*.

Crossed out - Whether an entry has been completed or not. Crossing out an entry does not remove it from the calendar.

Synchronization - Whether your calendar entries are shown to others when you connect to the network and synchronize your calendar. The options are *Public*, *Private*, and *No synchronization*. See the PC Suite Guide on the CD-ROM for more information about synchronization.

Edit an entry

1 Select the entry in the view.

2 Press **Enter**. A details dialog for the entry opens. Edit the details on the various pages.

You can now, for example, reset the alarm or redefine how the entry is repeated in the calendar. See 'Define information in a calendar entry' on page 132.

Change an entry type

Example: You might have entered an event, but you now want to change it to an appointment.

Tip: To change the default entry type of a particular view, press the Menu key and select *View* > *View settings...*. See *Default entry type* in 'View settings' on page 147.

1 Select the entry in the view.

2 Press the Menu key and select *Entry* > *Change entry type...*.

3 Choose a new entry type from the list.

Delete entries

Calendar entries accumulate over time and consume memory. To save memory, delete entries no longer needed from time to time.

Note: You can also back up your calendar data to a compatible PC. See the PC Suite Guide on the sales package CD-ROM for details.

Delete a single entry

There are two ways to delete a single entry:

- Select the entry in the view, then press the backspace key. A note is displayed asking you to confirm the deletion.
- Select the entry in the view, press the Menu key, and then select *File* > *Delete entry*. To confirm the deletion, press **OK**.

Tip: The shortcut to delete a single entry is to select it and press Ctrl + D.

Delete a range of entries using defined criteria

1 Press the Menu key and select *Tools* > *Move/Delete...*. A dialog box is displayed with a suggested range of entries to be deleted.

2 Press **OK** to delete all the entries defined in the dialog box at step 1, or press **Options** to define further criteria (including whether you want to 'move' or to 'delete'). A dialog with two pages opens. Define the following and press **Done** to return to the previous dialog.

Tip: You can move entries to another file and then to a PC to free up memory.

Details page

Action - The consequences of removing the entries. The options are *Delete*/*Move to a file*.

Entries - The types of entries which will be removed. The options are *All*/*Crossed out*.

Time period - The time scope of the removal. The options are *Whole calendar*/*Until today*/*From today*/*Other*.

Start - The start date of the entries to be removed.

End - The end date of the entries to be removed.

Entry types page

Choose from the following options: *Appointments*/*Events*/*Anniversaries*/*Tasks*.

View, create, and delete attachments

1 Open a calendar entry by pressing **Enter**. The entry details dialog with four pages opens.

2 Press **Attachments**. A selection list of attachments linked to the calendar entry opens.

3 To view a selected attachment, press **Open**.

To create a new attachment, press **New**.

To delete an attachment, press **Delete**.

4 If you want to add a new attachment, select the type of attachment and press **Insert new** to create the new attachment or **Insert existing** to browse for an existing attachment.

Views

Tip: You can press the Calendar application button repeatedly to cycle the view.

The Calendar consists of seven views. The purpose of each view is to help you organize your calendar so that you manage your time effectively on a daily, weekly, monthly, and yearly basis. You can customize the display of each view.

Commands in all views

Tip: In most of the views you can go to today's date by pressing the Space key on the keyboard.

The following command buttons are available in all of the views:

Edit - Opens a selected calendar entry for editing.

New entry - Enables you to create a new calendar entry if there are no entries for that day. You can also create a new calendar entry by just starting to enter characters on the keyboard, see 'Create new calendar entries' on page 132.

Change view - Opens a selection list from which you can switch to any of the other calendar views. The options are *Month*/*Week*/*Day*/*Task lists*/*Weekly time schedule*/*Year schedule*/*Anniversaries*.

Go to date - Opens a search dialog from which you can, by typing in the desired date, switch to any date in the calendar. Enter the date and press **OK**. Press **Today** to go to today's date. Press **Browse** to browse through the calendar.

Month view

June 2002
S S M T W T F
23 1 2 3 4 5 6 7
24 8 9 10 11 12 13 14
25 15 16 17 18 19 20 21
26 22 23 24 25 26 27 28
27 29 30
Friday 06/14/2002
Call dentist
Sophia
08:00 Group meeting in Pla
11:30 Lunch with Edna
14:00 Fax the schedule to Dan
17:30 Gym
20:00 Meet Margo at Railway sta...
Edit day
Change view
Go to date

Figure 52

Left frame

One row in the day table equals one week. Abbreviations for the days of the week are in the highest row. See Figure 52.

Dates that have scheduled events are marked in bold and blue.

The currently selected date is highlighted.

Right frame

The events of the currently selected date are shown in the day details frame on the right.

Tip: To edit an event, the right frame must be active. If you are in the left frame, go to the desired date and press the Enter key. The focus moves to the right frame.

Tip: To see a list of icons that are displayed in all views, see page 144.

Tip: To change the starting day of the week, press Extras, open the Control panel, and select *Regional settings*. Choose *Date* page and then *First day of the week*.

Tip: To move the position of the title box from left to right, press the Menu key and select *View* > *View settings...*. See *Title location* in 'View settings' on page 147.

Week view

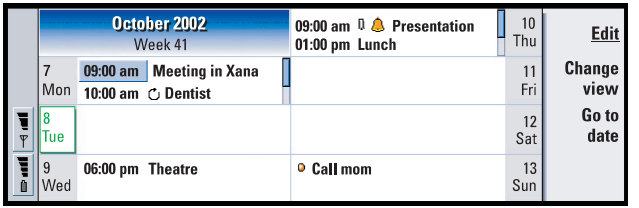

Figure 53

The week view shows the events for the selected week in seven day boxes.

The colored indicator area next to a day box shows the date and name of the day. Today's indicator area is framed green. See Figure 53.

Day view

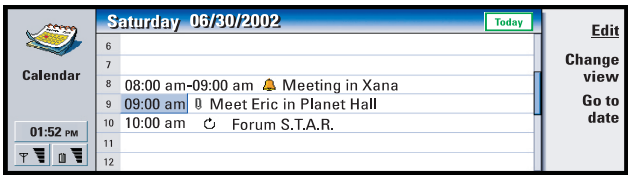

Figure 54

The day view shows the events for the selected day. See Figure 54.

Events are grouped into one time slot according to their starting time.

To view the day view of the previous day, press < on the Arrows key. To view the next day, press >.

Tip: To change the time period covered in one time slot, press the Menu key and select *View* > *View settings...*. See *Time slot allocation* in 'View settings' on page 147.

Task lists

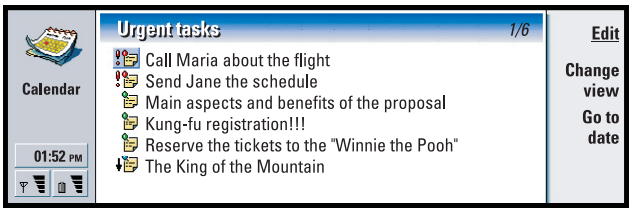

Figure 55

Tip: In day and week views, you can quickly move to a different date by pressing the Tab key, selecting the desired date with the Arrows key, and pressing **Enter**.

You can create one or several business or personal task lists which may contain tasks with or without deadlines. You can also set an alarm or a repeat for a task.

Tip: To see how to-do task lists are created, see page 144.

The page number in the upper right corner of the Task list view indicates the position of the task list among the other task lists. For example, in Figure 55, '1/6' means that there are altogether six task lists and 'Urgent tasks' is the first list.

To view the previous task list, press < on the Arrows key. To view the next task list, press >.

Tip: To see a list of all task lists, press the Tab key.

Due dates are shown to the right of a task, in brackets.

Tip: You can select different bar colors for different types of entries. See 'Status page' on page 135.

Weekly time schedule

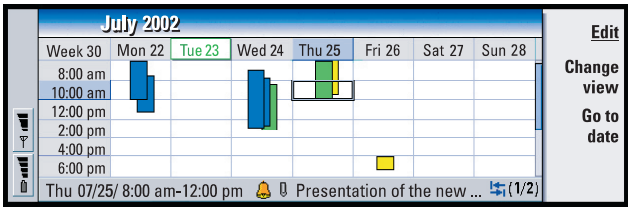

Figure 56

The weekly time schedule shows the reserved hours for the selected week. This means that only timed entries are shown The currently selected time box is framed.

Entries are marked with bars.

Example: Use a green bar for hobbies and a red bar for business trips to get a quick overview of your activities during a week. See 'View settings' on page 147.

If a time box contains entries, the bar across the bottom of the weekly time schedule shows the details of the entry. The numbers to the right of the entry description indicate the number of entries contained in that time box. For example, 1/2 in Figure 56 means that you are seeing the details of the first of two entries.

If a time box contains more than one entry, you can view a list of the entries by pressing the Tab key.

Year schedule

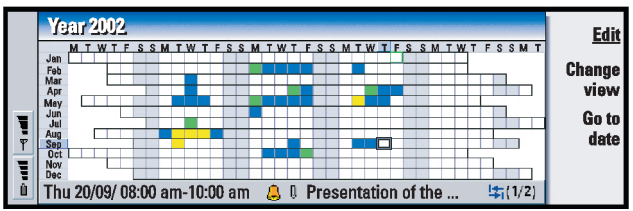

Figure 57

The year schedule shows the timetable for the selected year. Only entries with colors are shown in the year schedule. If there are several colors connected to the day, only one can be shown. See Figure 57.

Abbreviations for the days of the week are in the highest row and the months of the year in the far left column.

Time boxes have the same functions as in the Weekly time schedule.

Anniversaries

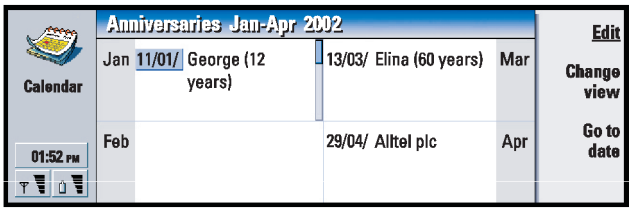

Figure 58

The anniversary view shows the anniversaries for four months at a time. You can add here all the birthdays and other anniversaries that you want to be reminded of. See Figure 58.

Note: Only anniversary entries are shown in the anniversary view.

Tip: To change the number of months shown in the anniversary view, press the Menu key and select *View* > *View settings...*. See *Months in view* in 'View settings' on page 147.

Icons

You can see the following symbols in Calendar:

- Alarm

- Anniversary

- Attachment

- Event

- Repeating entry

- Tentative entry

- Task

- Task, with high importance

- Task, with low importance

- Untimed entry

Task lists

Create a new task list

1 Press the Menu key and select *File* > *New task list...*. A dialog with two pages opens.

2 Define the task list on the two pages of the dialog. See 'Details page' and 'Visibility page' below.

3 When you are ready, press **Close**. The new task list is added in Task lists.

Details page

List name - The name of the task list.

Position - The position of the task list among the other task lists.

Sorting - How the tasks are sorted hierarchically in the task list. The options are *Manual*|*Priority then date*|*Date then priority*.

Visibility page

Show tasks - The views in which the tasks on the list will be shown. The options are *All views*|*Task list view*.

Task position - The position of the tasks in an event list if the tasks are all shown in *All views*.

Edit a task list

1 Open the task list.

2 Press the Menu key and select *View* > *Task list settings*.... A dialog with two pages, *Details* and *Visibility*, opens, as explained above.

Delete a task list

1 Open the task list.

2 Press the Menu key and select *File* > *Delete task list*.

Search for Calendar entries

You can search through the entries for particular pieces of texts.

1 Press the Menu key and select *Tools* > *Find entry*.... A search field opens.

2 Enter a key word for the entry you want to search for, or press **Options** to restrict the search by defining a set of qualifications. A dialog with two pages opens.

Tip: If you choose to sort a task list manually, all tasks on the list appear numbered. You can enter a new task entry randomly by focusing on a location in the list. You can also change the order of the tasks by cutting and pasting (Ctrl + X and Ctrl + V).

Define the following:

Details page

Refine search - Defines the search. The options are *No*/*Entries with an alarm*/*Entries with repetition*/*Crossed out entries*.

Time period - The time scope of the search. The options are *Whole calendar*/*Until today*/*From today*/*User defined*.

From - The starting point of the search.

Until - The ending point of the search.

Entry types page

Choose the type of entries you want to find. The options are: *Appointments*/*Events*/*Anniversaries*/*Tasks*.

Tip: You can stop a search by pressing **Stop**.

3 To start searching, press **Find**. A chronological list of the find results is shown. See Figure 59.

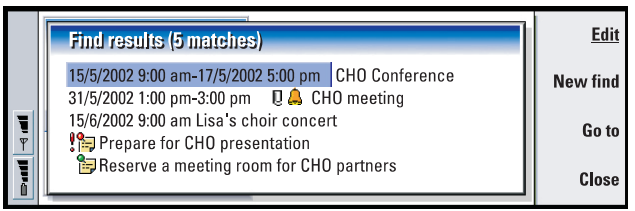
Find results (5 matches)
15/5/2002 9:00 am-17/5/2002 5:00 pm CHO Conference
31/5/2002 1:00 pm-3:00 pm CHO meeting
15/6/2002 9:00 am Lisa's choir concert
Prepare for CHO presentation
Reserve a meeting room for CHO partners
Edit
New find
Go to
Close

Figure 59

4 Select an entry and press:

- **Edit** to open the entry details dialog for editing,
- **Go to** to go to the date or view where the entry is located or,
- **New find** to start a new search.

5 Press **Close** to return to the currently active view.

Settings

General settings

1 Press the Menu key and select *Tools* > *General settings...*. A dialog opens.

2 Define the following:

Default view - The default view when opening either another or a new calendar file.

Display untimed entries - The location of untimed appointment, event, and anniversary entries in the entry list of all the timed views.

3 Press **Done** to return to the currently active view.

View settings

You can define the appearance of the view and default entry types for each view by following these steps:

1 Go to the view you want to define.

2 Press the Menu key and select *View* > *View settings...*. A dialog with two pages opens.

3 Define the view settings on the two pages of the dialog. See 'Details page' and 'Entry types' below.

4 Press **Done** to return to the currently active view.

Note: The contents of the dialog vary in different views. The following is a list of all the possibilities.

Details page

Default entry type - The entry type which is inserted in the view by default when you create a new entry. The options are *Appointment*/*Event*/*Anniversary*/*Task*.

Wrap text - Specifies whether or not the information in the entry is wrapped when viewed in any of the views.

Title location - Specifies whether the title of the week is on the left or right of the display in the weekly view.

Time slotTime slot allocation - The time period covered in one time slot of the daily views and weekly time schedules. The options are *2 hours*/*1 hour*/*30 minutes*/*15 minutes*.

Day starts - The time when a day starts in the Daily view.

Day ends - The time when a day ends in the Daily view.

Show color markings - Specifies whether all entry symbols or only symbols with the letter specified in *Default color* are shown in the year view.

Default color - The symbols and background colors of the different entry types in the particular view.

Months in view - The number of month boxes in the anniversary view.

Entry types

On the *Entry types* page you can choose the entry types you want to appear in the view you are defining: *Appointments*/*Events*/*Anniversaries*/*Tasks*.

8. Internet

This chapter describes how to get access to the Internet and how to use the Internet applications.

Your communicator has the following browser applications:

- WWW - A World Wide Web (WWW) browser supporting frames, JavaScript, and SSL (v.3) protocol
- WAP - A browser for accessing various types of information, entertainment, and other services in Wireless Application Protocol (WAP) format. WAP is suited to mobile devices with small screen displays and limited amounts of memory. WAP uses mainly text but does support pictures.

To connect to the Internet,

- the wireless system you use must support data calls,
- the data service must be activated for your SIM card,
- you must have obtained an Internet access point from an Internet Service Provider (ISP), and
- you must have entered the proper Internet settings.

Note: The Mail application, described in the Messaging chapter, also uses an Internet connection. See 'Mail' on page 188.

Your ISP can give you instructions on how to configure the Internet settings. Follow the instructions carefully.

Note: You must have your phone turned on, within system coverage and free of any other voice or data call to connect to the Internet.

Tip: To access WAP services, you need both an Internet access point and a WAP access point. See page 169.

Setting up your Internet access point

Note: To be able to use the Internet services, you need to configure an Internet connection. Some Internet service providers may offer you the possibility to configure your Internet settings by sending you a smart message via SMS. This might reduce the number of settings you need to enter yourself, or eliminate the need altogether. Please contact your Internet Service Provider (ISP) for details.

Internet connections

To set up and change the Internet settings, go to the Control panel in the Extras application group and open Internet access. For more information, see page 230.

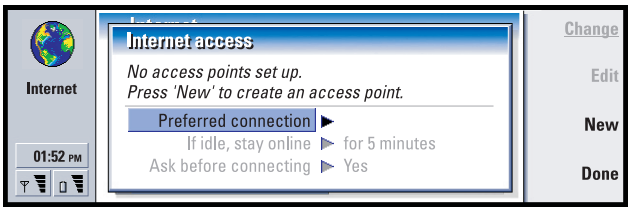

Figure 60

The first two lines contain a summary of the details of the preferred connection. Define the following:

Preferred connection - The default connection which will be used to connect to the Internet.

If idle, stay online - The connection to the Internet will automatically close after the inactivity period defined here. The options are *For 2 minutes*|*For 5 minutes*|*For 10 minutes*|*For 60 minutes*.

IMPORTANT: Some Internet connections may appear inactive, but they may still be sending and receiving data in the background. These connections may delay the start of the inactivity period specified here, and therefore postpone the closing of the connection.

Ask before connecting - The options are *Yes*|*No*. If you choose *Yes*, a connection dialog appears every time you connect to the Internet, asking you to either confirm, change, or cancel the connection, or change the Internet access point. If you choose *No*, the communicator will choose the default Internet access point.

Tip: You may have to set up several Internet connections, depending on the sites you want to access. For example, browsing the WWW may require one setup; browsing your company's intranet may require another connection.

Create a new connection or edit an existing connection

1 In the Internet connections dialog, press **New** to create a new connection or **Edit** to edit an existing connection.

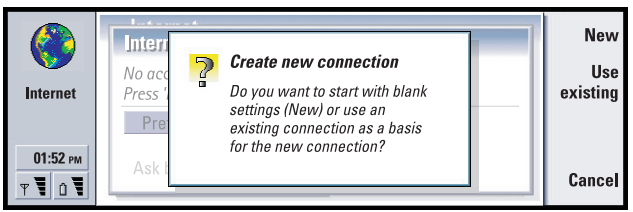
Internet
01:52 PM
Create new connection
Do you want to start with blank settings (New) or use an existing connection as a basis for the new connection?
New
Use existing
Cancel

Figure 61

2 If you already have connections defined, you can use an existing connection as a basis for the new connection. After you have pressed **New**, press **Use existing**. Choose the connection you want from the list which appears, and press **OK**.

3 A dialog on connection details opens. See Figure 62.

Note: The exact values for the settings are provided by your ISP.

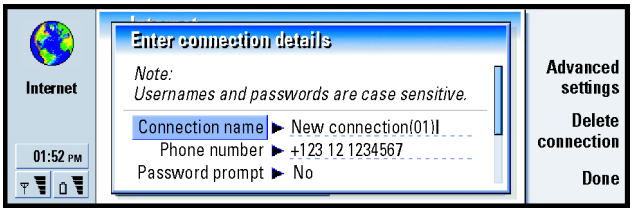

Figure 62

4 Define the following:

Connection name - Give a descriptive name for the connection.

Phone number - The modem telephone number of the IAP.

Tip: All your connections should have different names.

Tip: Often the minimum requirement for an Internet connection is: *Phone number*, *Username*, and *Password*.

Password prompt - If you must type in a new password every time you log on to a server, or if you do not want to save your password, choose *Yes*. The options are *Yes*/*No*.

Username - Type in a user name if required by the Internet Service Provider (ISP). The user name may be needed to connect to the Internet, and is usually provided by the ISP. The user name is often case-sensitive.

Password - Type in a password if required by the ISP. The password may be needed to connect to the Internet, and is usually provided by the ISP. The password is often case-sensitive.

Confirm password - Confirm your password by retyping it in this field.

Press **Advanced settings** to define the Advanced settings of the connection. A dialog with four pages opens. See Figure 62.

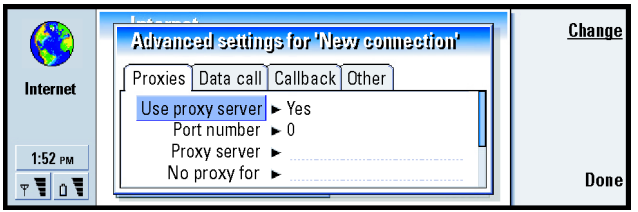

Figure 63

Proxies page

You may want to use a proxy to quicken access to the Internet. Note also that some ISPs require the use of Web proxies. Contact your ISP to determine proxy details.

When you have made an Internet connection for your company's intranet, and you are unable to retrieve Web pages from the general WWW, you may need to setup a proxy server to retrieve Web pages outside your company's intranet.

Use proxy server - To use the proxy server, select *Yes*. The options are *Yes*/*No*. Use of a proxy server is dependent on the protocol.

Port number - The number of the the proxy port. The port number is related to the protocol. Common values are 8000 and 8080, but vary with proxy server.

Tip: If you set *Use proxy server* to *No*, *Port number*, *Proxy server*, and *No proxy for* are dimmed.

Example: Example domain names are: company.com and organization.org. In a list, separate domain names with semicolons.

Proxy server - The IP address of the proxy server, or the domain name.

No proxy for - Define here the domains for which the HTTP proxy is not needed.

Data call page

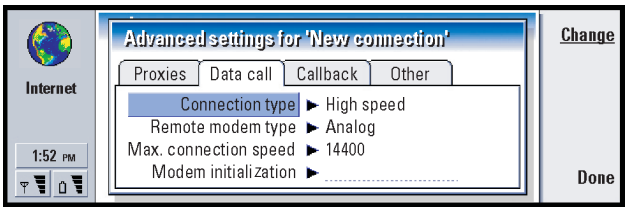

Figure 64

Tip: To forward and restrict data calls, go to the Internet application main view, then press *Tools* > *Control panel* > *Data call restriction*.

Connection type - The options are *Normal*/*High speed*. See Figure 64.

Note: To be able to use *High speed*, the system service provider has to support this feature, and if necessary, to activate it for your SIM card.

Remote modem type - The options are *Analog*/*V.110 ISDN*/*V.120 ISDN*. This setting can depend on both your GSM service provider and ISP, because some GSM systems do not support certain types of ISDN connections. For details, contact your Internet service provider. If ISDN connections are available, they establish connections more quickly than analog methods.

Tip: A very basic GSM data connection is: *Connection type*: *Normal*, *Remote modem type*: *Analog*, and *Max. connection speed*: *Automatic*.

Max. connection speed - The options are *Automatic*/*9600*/*14400*/*19200*/*28800*/*38400*/*43200*, depending on what you have chosen in *Connection type* and *Remote modem type*. This option allows you to limit the maximum connection speed when *High speed* is used. Higher data rates may cost more, depending on the system service provider.

Note: The speeds above are the maximum speed at which your connection will operate. During the connection, the operating speed may be less, depending on network conditions.

Modem initialization - Controls your communicator using modem AT commands. If required, enter characters specified by your GSM system service provider or ISP.

Callback page

Use callback - This option allows a server to call you back once you have made the initial call, so you have a connection without paying for the call. Contact your Internet service provider to subscribe to this service. The options are *Yes*/*No*.

Note: Charges may apply for certain types of received calls, such as roaming and high speed data calls. Contact your GSM service provider for more information.

Note: If you are not using HSCSD, the communicator expects the callback call to use the same data call settings that were used in the callback-requesting call. The system must support that type of call in both directions, to and from the communicator.

Callback type - The options are *Use server number*/*Use server number (IETF)*/*Use number below*. Ask your Internet service provider for the correct setting to use. The setting depends on the service provider's configuration.

Callback number - Type in your communicator's data phone number which the dial back server uses. Usually, this number is the data call phone number of your communicator.

Other page

Allow plain text login - If you select *Yes*, the password at connection may be sent in clear. The options are *Yes*/*No*. For optimum security, use option *No*. Some Internet service providers require that this setting is *Yes*.

Use PPP compression - If you select *Yes*, this option speeds up the data transfer, if it is supported by the remote PPP server. The options are *Yes*/*No*. If you have problems with establishing a connection, try setting this to *No*. Contact your Internet service provider for guidance. See Figure 65.

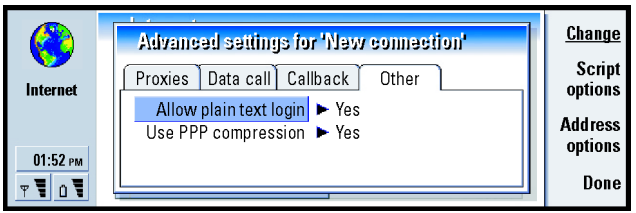

Figure 65

Script options

If you need to define script options for your Internet connection, press **Script options** on the *Other* page. A script can automate the connection between the communicator and the server. See Figure 66.

Tip: Your Internet service provider may be able to provide you with a script.

Note: Scripts are not usually required when you establish a connection. To find out whether you need a script, contact your Internet service provider.

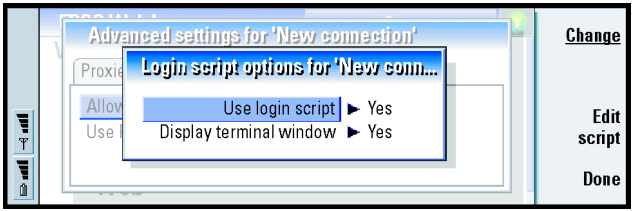

Figure 66

Press **Edit script** to edit the script. In the Edit script dialog you can press **Import script** to import a script. On importing, it replaces the current contents of the script file.

Define the following:

Use login script - The options are *Yes*/*No*.

Display terminal window - The options are *Yes*/*No*. If you choose *Yes*, once a connection is established you see the execution of the script. Use this window when resolving connection problems related to scripting, with your Internet service provider.

Address options

Press **Address options** on the *Other* page, to define the IP and DNS addresses. See Figure 67.

Tip: Advanced users will find scripting an advantage, where use of scripting is allowed. You can obtain instructions from Forum Nokia at URL www.forum.nokia.com

Tip: There is a glossary containing Internet terms and abbreviations at the back of this user guide.

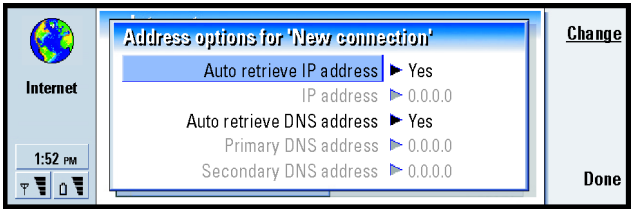

Figure 67

Define the following:

Auto retrieve IP address - If you select *Yes*, the IP address is obtained automatically from the server. The options are *Yes*/*No*. This setting is also called 'dynamic IP address'.

IP address - The IP address of the communicator. If the IP address is obtained automatically, then you are not required to enter details here.

Auto retrieve DNS address - If you select *Yes*, the DNS (Domain Name Server) address is obtained automatically from the server. The options are *Yes*/*No*.

Primary DNS address - The IP address of the primary DNS server.

Secondary DNS address - The IP address of the secondary DNS server.

Note: If you need to enter the *IP address*, *Primary DNS address*, or *Secondary DNS address*, contact your Internet service provider to obtain these addresses.

Connect to the World Wide Web

To connect to the World Wide Web,

- the GSM data service must be activated for your SIM card, and

- you must configure an Internet access point. For more information, see page 150.

Note: Only install software from sources that offer adequate protection against viruses and other harmful software. For information on software installation and security certificates, see 'Date and time' on page 235.

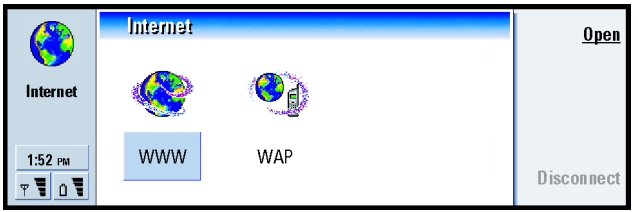

Figure 68

To open the WWW browser,

1 Press the Internet application button on the communicator keyboard.

2 Select the WWW application and press **Open**.

- Unless you have already redefined the default homepage, a Nokia 9290 link page opens. This page is located in the memory of your communicator and does not require an Internet connection.
- If you have redefined a homepage, a dialog with the *Connection name* and *Phone number* of the Internet access point you are using is displayed. See Figure 69. You can also choose not to see the connection dialog when the connection is made; see 'Internet connections' on page 150. To change the Internet access point press **Change connection**. Press **OK** to establish a connection.

Tip: When you are browsing the WWW, some Web pages may prompt you to save (download) a file to your local disk (your communicator). See the IMPORTANT note in this section warning about viruses.

Tip: To change the internet access point, point the Menu key in the Internet application group view and select *Tools> Internet access.*. or go to the Control panel in the Extras application group and open Internet access. For more information, see page *150*.

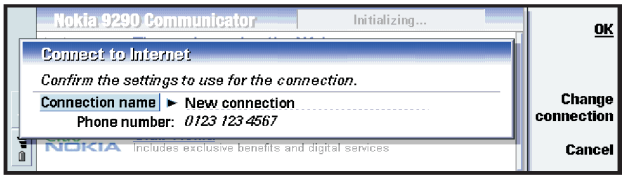

Figure 69

Note: In order to free up additional memory for large Web pages, all other applications are closed automatically when the WWW browser is opened.

3 For information on opening Web pages and navigating in the Web, see 'Open a Web page' on page 160. For information on adding a page to your bookmark list, see 'Bookmarks' on page 167.

4 To close an application, press **Close**.

5 To disconnect from the Internet, in any of the Internet applications, press the Internet button on the keyboard, then press **Disconnect**. Disconnection is immediate.

Tip: An alternative way to disconnect from the Internet is to close the cover and press the key.

Note: Depending on the network configuration and load, establishing an Internet connection may take a minute or more.

Open a Web page

There are several ways to open a page in the World Wide Web.

1 If you know the address of the Web page that you want to visit, press **Open URL**, type the address into the address field, and press **OK**. Alternatively, select a link on your default home page and press **Go to**.

Figure 70

2 A dialog with the *Connection name* and *Phone number* of the Internet access point you are using is displayed. See Figure 69. You can also choose not to see the connection dialog when the connection is made; see 'Internet connections' on page 150. To change the Internet access point, press **Change connection**. Press **OK** to establish a connection.

Note: If the page and its components are encrypted by a security protocol, the security icon appears on the title bar.

Note: Some servers have access restrictions that require a valid user name and password. In this case, you will be prompted for your user name and password before the Web page can be retrieved.

Example: An example of a URL address is **www.nokia.com**

Tip: In the dialog that opens, press **History list** to view the list of pages you have visited during the current session.

Tip: If you have a bookmark of the page you want to visit, press the Menu key and select *Tools> Bookmarks*. Select a bookmark in the Bookmarks list and press **Go to**.

Tip: To save page elements in your communicator, press the Menu key, select *File* > *Save*, and select the appropriate submenu command.

Browse the WWW

After the Web page has been retrieved, the following commands become available, depending on what is selected on the page:

Open URL- Press to open a dialog where you can define a web page to open.

Go to - When a link is selected, press **Go to** to view the target of the link.

Back - Allows you to retrieve the previous page that you have just browsed.

Bookmarks - Opens the Bookmarks view.

Close - Closes the WWW browser application.

Note: Stored passwords to individual Web sites are removed when the communicator is restarted or the cookie list is emptied. To clear the cookie list press the Menu key, and select *Tools* > *Delete cookies*.

Tip: To go to your home page, press the Menu key and select *Navigation* > *Go to home page*.

Browse with the keyboard

The best way to browse a page and the WWW is to use both the keyboard shortcuts and the pointer. You can use the Tab key and some other keys to select elements on a page or the pointer as a mouse to select elements directly. The following table lists useful keyboard shortcuts of the WWW application. You can find more shortcuts in the application next to menu commands.

Key	Function
Enter Tab Shift + Tab A Q S W D E Ctrl + Tab	Clicks with the pointer Selects the next box, button or other form element. Selects the previous form element on a page Selects the next link on a page Selects the previous link on a page Selects the next heading on a page Selects the previous heading on a page Selects the next element on a page Selects the previous element on a page Selects the next frame, if available.
Chr + up/down arrow (on Arrows key) Ctrl + left/right arrow (on Arrows key) Ctrl + up/down arrow (on Arrows key)	Scrolls the page screen by screen Scrolls to the start or to the end of the page Scrolls the page line by line
X Z	Moves to the next page, if already visited Moves to the previous page, if already visited
Shift + Enter G	Displays *Save as* command. Toggles the loading of images on or off.

Browse with the pointer

You can see the pointer on the screen when you open a web page. The functionality of the pointer is similar to a mouse, but you move it with the Arrows key and click it by pressing the Enter key.

To select an area, keep Enter pressed down and move the pointer over the area with the Arrows key.

To scroll a page, you have several options:

- Move the pointer onto the scroll bar, press Enter and keep it pressed down as long as necessary.
- Move the pointer onto the scroll bar and press the space key to turn on continuous scrolling. The page scrolls and the scroll box moves to the direction of the pointer whenever the pointer is in the scrolling area. Press the space key again to turn off continuous scrolling.
- Move the pointer over the edge of the window to the direction where you want to scroll the page to scroll the page automatically.

Tip: Press Ctrl + Tab to change the active frame.

Loading options

Tip: Useful shortcuts are: Ctrl + R for *Reload*, and Ctrl + Z for *Stop loading*.

Depending on the number and size of images and other elements some web pages may be slow to load. To control loading you have the following options:

- Reload the page or stop loading altogether; press the Menu key and select *Navigation* > *Reload* > *Reload* or *Stop*.
- Turn off the auto-loading of images. The images are then replaced by placeholders. Press the Menu key and select *Tools* > *Settings...*, go to the General page and in the *Show images* field select *No*.
- Toggle the loading of images on and off by pressing the G key.

Change frame sizes

Tip: To change the active frame when a Web page contains frames, press Ctrl + Tab.

Where a Web page contains frames, you can change the frame sizes of the page, to view better the contents of the selected frame.

1 Move the pointer cursor over a frame border.

2 Press and hold down the Enter key. Arrows are displayed around the selected frame border.

3 Use the Arrows key to resize the frame.

4 To cancel the previous move, press Esc.

Open a frame as a new page

To open the currently active frame as a new page and discard the other frames, press the Menu key and select *File* > *Open* > *Frame as new page*.

View pages in high contrast

Some Web pages use colors which make reading difficult. Viewing pages in high contrast makes them easier to read. Press the Menu key and select *View>High contrast*.

View pages offline

To view local downloaded pages in your communicator without accessing the WWW, press the Menu key and select *File>Browse Offline*.

WWW settings

To change the WWW settings, press the Menu key and select *Tools* > *Settings...* . A dialog with two pages opens. See Figure 71.

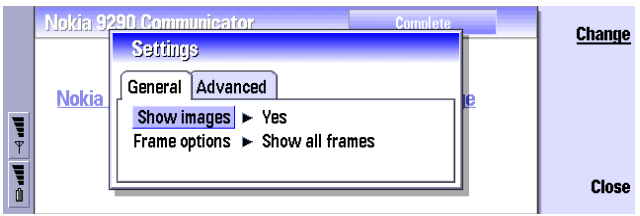

Figure 71

General page

- *Show images* - The options are *Yes/No/Only cached*. If you select Yes the WWW browser loads all the pictures on a Web page when it displays the Web page. If you select *Only cached*, only the pictures stored in cache memory are loaded.
- *Frame Options* - The options are *Show all frames/Show frames one by one/Do not use frames*. Some Web pages are split into several frames, which makes reading difficult, so choose an option which suits you.

Advanced page

- *Use cookies* - Some Web pages store data on your communicator in files called 'cookies'. Use this setting to determine whether to accept cookies, and if you accept them, whether you wish to be prompted each time a cookie is stored. The options are *Always/Never/Ask*.

Tip: To delete the cookies, press the Menu key and select *Tools> Delete cookies*.

Note: As cookies accumulate with time, they may eventually take up a large amount of memory space. You can free memory space by deleting the cookies stored in the memory.

Tip: To empty the cache immediately, press the Menu key and select *Tools> Clear cache*.

- *Empty cache on exit* - If you select *Yes*, the cache memory is emptied when you exit the WWW browser. The options are *Yes/No*.

Note: The information or services you have accessed are stored in the cache of your phone. A cache is a buffer memory, which is used to store data temporarily. If you have tried to access or have accessed confidential information requiring passwords (for example, your bank account), empty the cache of your phone after each use.

- *Empty history list on exit* - If you select *Yes*, the history list is emptied when you exit the WWW browser. The options are *Yes/No*.

Cache, History, and Plugins view

These views display a list of information on cache memory, browser history and installed plugins.

To view information about the cache memory used for temporary storage of the pages you visit, press the Menu key and select *Information* > *Cache*.

To view information about the sites you have visited, press the Menu key and select *Information* > *History list*.

To view what add-on software for the WWW browser has been installed, press the Menu key and select *Information* > *Plug-ins*. Plug-ins can display documents that the WWW browser itself cannot show, such as multimedia clips. You can download plug-ins from the WWW.

Bookmarks

The Bookmarks view can be accessed by pressing **Bookmarks** in the main view of the WWW application. See Figure 70.

The Bookmarks view lists links to WWW pages in related folders. You can organize, edit, and view these bookmarks. You can also search for them and then connect to the URL addresses directly. See Figure 72.

Figure 72

Tip: To create and rename folders, press the Menu key and select *Bookmarks*> *Insert new folder* or *Rename folder*.

To retrieve the currently highlighted Web page, press **Go to**.

To open and close folders, press **Open folder** and **Close folder**.

To search for bookmarks, press the Menu key and select *Edit* > *Find*.

To edit the name or address of a bookmark, press **Edit**.

To return to the main view, press **Close view**.

Add a new bookmark while browsing the WWW

You can add a Web page, or a frame or link on a Web page, as a bookmark to your Bookmarks list.

1 On an open Web page, press the Menu key and select *Tools* > *Add bookmark*.

2 Edit the name and address of the bookmark, if necessary.

3 Press **OK**.

Export the Bookmarks list

In the Bookmarks view, press the Menu key and select *Bookmarks* > *Export as HTML* to export the current Bookmarks list as an HTML document.

Note: When you export bookmarks as HTML, the folder structure is lost.

WAP

The WAP application can be used to access Internet services which are based on the Wireless Application Protocol (WAP). These services can contain news, weather reports, flight times, dictionaries, and so on.

Note: The content of each service depends on the content provider of that service. To use such a service, follow the instructions provided by the content provider.

Obtain access to WAP services

- you must be within the coverage of a system which supports data calls,
- a data service must be activated for your SIM card,
- you must have obtained a WAP access point from a WAP service provider, and
- you must have entered the proper WAP settings.

Differences between the WWW and WAP services applications

The WAP application is similar to the WWW application, but there are two differences:

- To access WAP services you need to define WAP access points in your communicator. WAP access points are additional to the Internet settings. You can receive WAP access points directly via a short message from your WAP service provider, or define them manually. This chapter contains instructions for manual setup.
- Certain bookmarks can be accessed through a specific access point, for example, banking services may have to be accessed through the bank's own access point. The easiest way to use these kinds of services is to define an altogether new bookmark which uses the correct WAP and Internet access point.

Set up WAP connections

Note: Before you can use the WAP services, you need to configure your WAP settings. Your WAP service provider will provide you with the exact values for the WAP settings. Follow the instructions carefully. You can use this

information to define and edit the settings manually. Furthermore, your service provider may be able to send some, or all, of the required settings to you via a special short message, an Over The Air (OTA) message. After you have received the settings, you can start using the WAP application or edit the settings as described below.

Define and edit WAP connections

1 Select the WAP application and press **Open**.
2 Press the Menu key and select *Tools* > *WAP access*. A dialog opens.
3 Press **New** to create a new connection, and **Edit** to edit an existing connection. A dialog opens. See Figure 73.

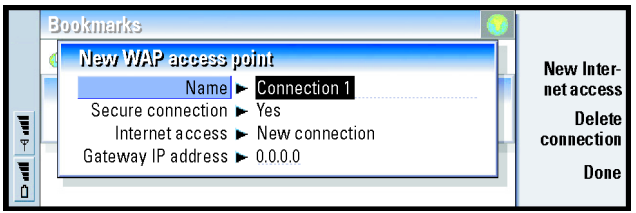

Figure 73

4 Press **Close** when you are ready.

Tip: The shortcut to define and edit WAP access points is Ctrl + Shift + X.

Name - Name of the connection. All your connections should have different names. You can define each name freely.

Secure connection - Whether the security protocol TLS is used for the connection. The options are *Yes*/*No*. Follow the instructions given to you by your WAP service provider. See also Glossary term 'Transport Layer Security' on page 308.

Note: Some secure connections use authentication procedures. If authentication fails, you may need to download some certification keys. Contact your WAP service provider for details.

Internet access - Choose from a selection list the IAP you wish to use for this connection. If you have no IAPs, you create a new one by pressing **New Internet access**. See page 151.

Gateway IP address - The IP address that the required WAP gateway uses.

Changing WAP access points

1 To change WAP access points, press the Menu key and select *Tools* > *WAP access*. A dialog opens.

2 Press **Change** to change the connection. A list opens.

3 Choose the connection from the list and press **OK**.

Bookmarks

The Bookmarks view is the main view of the WAP application. You can organize, edit, and view these bookmarks in the same way as WWW bookmarks, see page 167.

To add a bookmark, press the Menu key, then select *Bookmarks* > *Add bookmark*. A dialog opens. See Figure 74.

Tip: The shortcut to add a bookmark is Ctrl + B.

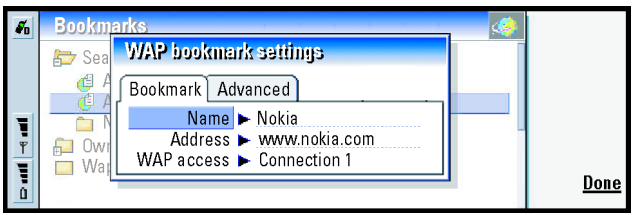

Figure 74

Note: A bookmark always uses the same connection defined in the *WAP access* field. To set up a WAP access point, see page 169.

To open a WAP page defined in a bookmark, select the bookmark, then press **Go to**.

To edit bookmark settings, select the bookmark, then press **Edit**.

To import or export bookmarks, press the Menu key, then select *Bookmarks* > *Import bookmarks* or *Export bookmarks*, respectively.

Navigate WAP services

There are three ways to open a WAP page, either:

- Choose a WAP bookmark from the list of bookmarks and press **Go to**. The page is retrieved; or
- Go to the WAP application home page. Press the Menu key, then select *Go to* > *Home page*.
- Open a URL; press the Menu key, then select *File* > *Open page*. A dialog opens. Enter the address of the URL, for example: **www.nokia.com**.

Tip: The shortcut to go to the home page is Ctrl + H.

Tip: The shortcut to open a URL is Ctrl + O.

Once the WAP page is opened, use the ^ and v arrows on the Arrows key to scroll the view and to choose hyperlinks and hotspots.

Note: Some servers have access restrictions that require a valid user name and password. In this case, you will be asked to type in the user name and password before a connection to the service can be established.

WAP settings

To define WAP service settings, press the Menu key and select *Tools* > *Settings*. A dialog with two pages opens. See Figure 75.

Figure 75

Here you can change settings such as your WAP home page.

Note: You can use a file on the communicator as your home page.

Java

The Java in the Nokia 9290 Communicator is a Personal Java application environment designed especially for the communicator. Java enables you to use Java applications downloaded from the Internet.

Java Software Development Kit (SDK) is available in Forum Nokia.

9. Messaging

Messaging contains the following applications: Fax, Mail and SMS (Short Message Service).

To start Messaging, press the Messaging application button on the communicator keyboard.

The overall requirements for using fax, mail and SMS, applications are as follows:

- The phone must be turned on.
- The system you are using must support fax calls, data calls, and the Short Message Service.
- The fax, data and Short Message Service must be activated for your SIM card.
- You must have obtained an Internet Access Point (IAP) from an Internet service provider.
- You must have entered the proper Internet and Mail settings.
- The short message center number must be stored in the settings of the SMS application.

Tip: To set Internet settings, see page 150. To set Mail settings, see page 188.

Contact your home service provider for details.

When you connect your communicator to a PC, you can synchronize your e-mails with Microsoft Windows programs. You can also reply to and read remotely Microsoft Windows and Lotus e-mail. For information on synchronization, see 'Mail synchronization with your PC' on page 199 and the PC Suite Guide.

Messaging center

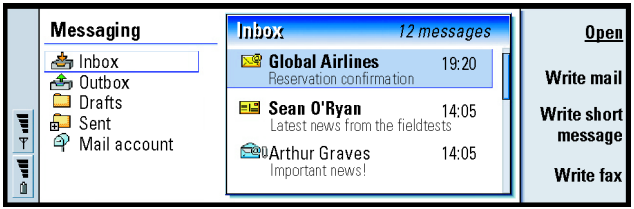

Figure 76

Tip: You can move between the two frames with the Arrows or Tab key.

The main view of Messaging has two frames: on the left is a list of the folders in the Messaging center, and on the right are the messages connected to the currently selected folder.

Folders in the Messaging main view are:

Inbox - Received faxes and short messages. Received mail appears in the Remote mailbox folder.

Outbox - Messages which are waiting to be sent from the communicator.

Drafts - Saved message drafts.

Sent - Messages which have been sent from the communicator.

Any remote mailboxes that you set up appear at the bottom of the folder list.

Open folders and messages

To open a folder, select the left frame in the main view of Messaging, go to the folder and press **Open folder**.

To open a message, in the message list of the main view, go to the message and press **Open**. The message opens in the appropriate viewer, for example, a mail message opens in the mail viewer.

Tip: You can also press **Enter** to open messages and folders.

Manage folders

You can create your own folders in *Drafts*, in your own folders and in the root of the folder list. You cannot create new folders in *Inbox*, *Outbox* or *Sent*.

1 Select the left frame in the main view of the Messaging.

2 Press the Menu key and select *File* > *Folder* > *Create new folder...*.

3 Type a name for the new folder.

4 Select where you want to create the folder.

5 Press **Create**. The new folder appears on the folder list.

Tip: You can create folders to IMAP4 remote mailboxes when online.

To move faxes, mail and short messages from one folder to another, select the file, press the Menu key and select *Edit* > *Move*.

To search faxes, mail and short messages for names, dates, time, or any other pieces of text press the Menu key and select *Tools* > *Find...*. For further details, see 'Search for text' on page 84.

Sort messages and faxes

You can also sort faxes, mail and short messages by various criteria, such as date and size, which affects the way they appear in the different views of Messaging.

1 Open the folder where you want to sort the messages and faxes.

2 Press the Menu key and select *View* > *Sort by*.

3 Choose from the following options: *Message type*|*Sender/Recipient*|*Subject*|*Date*|*Size*|*Priority*.

Tip: To choose the sorting order, press the Menu key and select *View* > *Sorting order*. Choose between *Ascending* and *Descending*.

Inbox

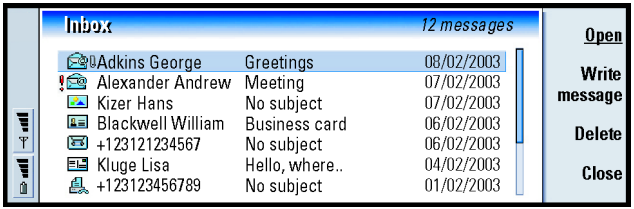

Figure 77

Tip: To reply to a message in the Inbox, press the Menu key and select *Write* > *Reply*.

Unread messages appear in bold.

The icons in front of messages indicate message type, priority and possible attachments. Here are some of the icons that you may see:

	new mail in remote mailbox		new ringing tone
	new fax		new remote configuration data
	new short message (SMS)		unread mail
	new voice mail message		unread mail received from PC by synchronization
	new message from your system service provider		priority high
	new business card		priority low
	new calendar invitation		message contains an attachment

Outbox

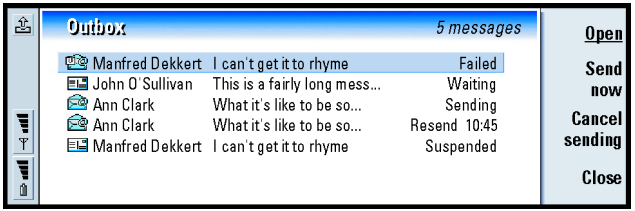
Outbox
5 messages
Manfred Dekkert I can't get it to rhyme Failed
John O'Sullivan This is a fairly long mess... Waiting
Ann Clark What it's like to be so... Sending
Ann Clark What it's like to be so... Resend 10:45
Manfred Dekkert I can't get it to rhyme Suspended
Open
Send now
Cancel sending
Close

Figure 78

Tip: You can send faxes, mail and short messages immediately, at a predefined time or upon request, depending on a delivery setting. See **Sending options** in the corresponding editors.

Statuses

Faxes, mail and short messages waiting to be sent from the communicator can have the following statuses in Outbox:

Sending - The fax or short message is currently being sent.

Upon request - The mail, fax, or short message will be sent only if you specifically press **Send now** in the Outbox view.

Waiting - The fax or short message is queuing to be sent and will be sent as soon as possible, for example, when the phone is switched on, signal strength becomes adequate, or the previous phone call ends. In the case of mail messages, *Waiting* shows that the message will be sent the next time you connect to your remote mailbox.

Calling - Outbox is calling the recipient of the fax message.

Preparing - Outbox is rendering a T.4 format fax image; this means that color is converted to black and white.

Tip: If the status of a fax, mail or short message is *Suspended*, *Resend* or *Scheduled*, you can open and delete it, or resume sending.

Failed - One or more pages of a fax or short message failed to be sent.

Suspended - You have suspended the sending of the message or fax. You can resume the sending of a message by pressing **Send now** in the Outbox view.

Resend - The fax or short message failed to be sent but the communicator will retry to send it.

Scheduled - The fax or short message is scheduled to be sent at a specific time. To cancel the sending of a fax, mail or short message, select it and press **Cancel sending**.

When a message or fax has been successfully sent, it is automatically moved to the Sent folder.

Write and send faxes, mail and short messages

There are two ways you can start creating faxes, mail and short messages in the Messaging application:

Tip: If you are already writing a message or fax and want to start on a new message, press the Menu key and select *File* > *New short message* or *New fax*.

- Press any of the following commands in the main view of Messaging: **Write fax**, **Write mail** or **Write short message**.
- Press the Menu key in the main view of Messaging and select *Write* > *New message...*. Then select the appropriate message type.

You can also send send faxes, mail and short messages in all the applications where you can find the option *File* > *Send* after pressing the Menu key.

If you want to save, but not send a fax, mail or short message you have just written in the corresponding editor, press **Close**. The message is saved in the *Drafts* folder. The saved message replaces the previously saved version of the same message. To revert back to the previously saved version of the mail or fax, press the Menu key and select *File* > *Discard changes*. Note that this is not possible with short messages.

Tip: When you start writing a new fax, mail or short message, a temporary copy of it is automatically stored in the Drafts folder. It is removed from Drafts and placed in Outbox once you press **Send**.

Select recipients

There are two ways to select recipients to your fax, mail and short messages:

Note: A fax can have only one recipient.

1 Press **Recipient** in the corresponding message editor. A dialog listing your contacts opens, see Figure 79.

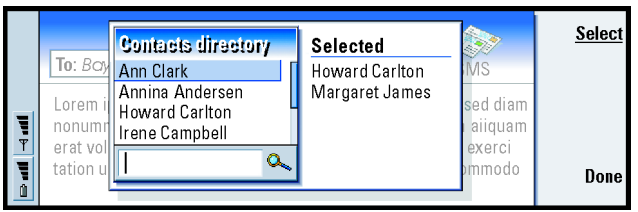

Figure 79

2 Search for a contact or contacts in the left frame and press **Select**. The right frame shows the contacts you have already selected; to remove a contact, select it and press **Remove**.

3 Press **Done**.

Tip: You can select more than one contact at a time, see 'Select several items at once' on page 80.

You can also just type in the first letters or the whole name of the recipient into the header of the fax, mail or short message and check if the letters or name match an entry in your contacts database:

Tip: In the case of mail, you need to select the contacts to the appropriate fields in the dialog by pressing **To**, **Cc** or **Bcc**.

1 Type in the name of the recipient into the header of the message.

2 Press the Menu key and select *Tools* > *Check names*.

3 If the name you have entered matches to more than one name, or if the person has more than one GSM phone number, fax number or mail address, a selection list appears.

Select the correct name, phone number, or address from the list and press **Select**.

Checked recipients are moved to separate lines in the header of the message. Note that a fax can have only one recipient.

4 To add another recipient to a mail or short message, press Enter after a checked recipient or insert the semicolon ";" as a separator.

To delete a checked recipient, move the cursor to the end of the entry and press backspace.

Avoid low memory

You should regularly delete messages from your Inbox and Sent folders and delete retrieved mail from the communicator memory to free up memory space.

WARNING: If you do not use this method to delete mail messages from your communicator, the messages may also be permanently deleted from your remote mailbox.

To delete dowloaded mail messages from the communicator:

1 Press the Menu key in the main view of Messaging and select *Tools* > *Message storage...*. A dialog with two pages opens.

2 On the *Communicator* page you can choose to delete all mail messages or messages older than a given time period. To delete selected messages, press **Delete now**. Messages are deleted from your communicator's memory, but they are not deleted from your remote mailbox.

On the *Memory* page, you can delete or move messages from the current store. To change the store in use, press **Change**. To move the message storage from communicator's memory to a memory card or vice versa, press **Move**. To delete all the messages in the selected message storage, press **Delete**.

WARNING: Deleting the message storage deletes permanently all messages and mailbox folders and restores all messaging settings to factory defaults.

Note: If you create a new message store to a memory card and remove the card, remember to create a new store in the internal memory for messages to be received. Otherwise, you cannot move messages from one memory storage to another.

Tip: Use a PC mail client to move mail messages from your remote inbox to other folders for archiving. If you keep the number of messages in the remote inbox to a minimum, your communicator has more available memory and the mail connection is faster.

Tip: See 'Mail attachments' on page 197 to delete attachments from received mail messages.

Fax

You can write and send faxes in the fax editor.

You can write documents in the Document or Sheet applications and then send them as faxes. It is also possible to send faxes with embedded images. For details on images, see 'Imaging' on page 241.

Tip: For more advanced word processing, use Document instead of the fax editor.

Write and send a new fax

1 Press **Write fax** in the main view of Messaging. The fax editor opens, see Figure 80.

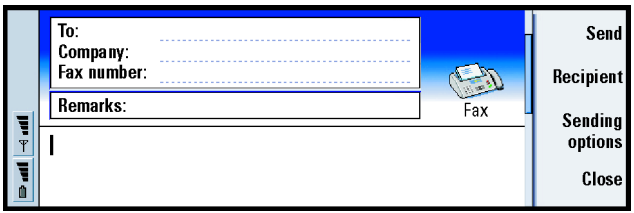

Figure 80

2 Write the fax.

To format the text, press the Menu key and select *Format*.

3 Press **Recipient** to select the recipient. A fax can have only one recipient.

4 If you wish to adjust the sending options of the fax, press **Sending options**.

5 For details, see Fax settings on page 187.

6 Press **Send**.

Note: Voice calls are not possible when a fax is being sent or received.

Tip: You can zoom in the fax editor. Press the Menu key and select *View* > *Zoom* > *Zoom in* or *Zoom out*.

Tip: To select a recipient, see details on page 181.

Tip: To define a specific date and time when the fax will be sent, select *Scheduled* in the *Send fax* option.

Tip: To define the default format of the header in your faxes, you want a cover template to be attached to the faxes, see 'Fax settings' on page 187.

Fax cover page

You can attach a cover page to the fax you are currently creating or editing.

1 Press **Sending options** and then select *Fax cover page*.

2 Choose one of the following options:

None - The header of the fax will have only the *To:* and *Fax number:* fields.

Header - The header of the fax will have information about the sender and recipient of the fax, and the date of the fax.

Template 1 - The header field of the fax will have information about the sender and recipient of the fax and a separate *Remarks:* field.

Full template - The header field of the fax will have more information about the sender and recipient of the fax, the date of the fax and a separate *Remarks:* field.

You can save and use customized cover templates in the Templates folder using File manager; for more information see page 220. Whatever cover template you use, the available recipient information is filled in automatically.

Receive and read faxes

Faxes are received automatically, provided that this service is available and that the phone is turned on and within system coverage.

When a new fax is received, you hear a tone - unless the system is set to a silent profile - and an information note is shown on the display.

Press **Open** to view the fax.

To open a fax received earlier, go to the Inbox, select the fax and press **Open**.

Note: If a fax is not received completely due to some failure, it is named *Incomplete fax*.

Tip: To forward a received fax, press the Menu key and select *File* > *Forward*.

Tip: You can zoom and rotate in the fax viewer. Each press of **Rotate** rotates the fax 90 degrees clockwise.

Select and save all or part of a received fax

You can select all or part of a fax and save it in another format for further editing.

To select an area of a fax page:

1 Press the Menu key in the fax viewer and select *Tools* > *Selection frame*. A selection frame appears in the fax viewer.

2 Use the Arrows key to move the selection frame to the upper-left corner of the area you want to select.

3 To change the size of the selection frame, press and hold the Ctrl key and press the Arrows key. To cancel the selection, press the Menu key and select *Tools* > *Selection frame* again, or just press Esc key.

To save fax in another format

1 Press the Menu key in the fax viewer and select *File* > *Export...*. Select the range to be exported. The options are *Whole document* | *Current page* | *Selected* | *User defined*. Press **OK**. A dialog opens.

2 Specify the name and location of the new document. To change the format of the new document, press **Change format**.

3 Press **OK** to save the exported fax file.

Fax polling

You can retrieve faxes from a remote fax box by using Fax polling, if available in the system. It allows you to make a fax call to a fax machine and then receive information by fax.

Retrieve faxes from a remote fax box

1 Press the Menu key in the main view of Messaging and select *Receive* > *Fax* > *Dial fax poll*.

2 Type in the fax number for the remote fax box, or choose the number by pressing **Recipient**.

3 Press **Call** to call the number.

Fax settings

Any changes you make to fax settings affect the way in which your faxes are sent and received.

1 Press the Menu key in the main view of Messaging and select *Tools* > *Account settings...*.

2 Select *Fax* and press **Edit**. A dialog with two pages opens. Define the following:

Settings page

Fax cover page - Defines whether or not a cover page will be used. The options are *None*/*Header*/*Template 1*/*Full template* - In addition to the options above, the option list may contain other cover templates saved in the Templates folder.

Send fax - Defines when the fax will be sent. The options are *Immediately*/*Upon request*.

Advanced page

Resolution - The resolution of the sent and received faxes. The options are *High*/*Standard*.

ECM - Defines whether or not the Error Correction Mode is used when faxes are sent. If set to *On*, any pages containing errors are automatically returned to sender, until the defects are corrected. The options are *On*/*Off*.

Resend - Defines which pages will be sent again if the fax sending has failed. The options are *All pages*/*Missed pages*.

Mail

The Nokia 9290 Communicator mail system is compliant with Internet standards SMTP, IMAP4 (rev 1) and POP3.

To be able to receive and send mail, you need to have set up a remote mailbox service. This service may be offered by an Internet service provider, a system service provider, or your company.

Tip: If you press **Write mail** in the main view of Messaging and you have not set up your mail account, you will be prompted to do so.

Before you can send, receive, retrieve, reply to, and forward mail on your communicator, you must do the following:

- You must configure an Internet access point (IAP) correctly. See 'Setting up your Internet access point' on page 150.
- You must define your Mail settings correctly. See 'Mail settings' on page 188.

Note: Follow the instructions given by your remote mailbox and Internet service providers.

Mail settings

Any changes you make to mail settings affect the way your mail is sent and received.

To connect to your remote mailbox, you need to define a mail account on your communicator:

1 Press the Menu key in the main view of the Messaging center and select *Tools* > *Account settings*....

2 Press **Create new**. A selection list of possible account types opens.

3 Select *Mail* and press **OK**. A dialog with four pages opens. See Figure 81.

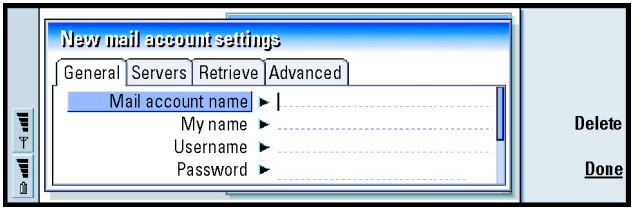

Figure 81

4 Define the following:

General page

Mail account name - The name of the remote mailbox. You can type here any name to describe the mailbox.

My name - Type in your name.

Username - Type in your user name.

Password - Type in your password. If you leave this field blank, you will be prompted for a password when you try to read mail in your remote mailbox.

My mail address - Type in the mail address given to you by your service provider. The address must contain the '@' character. Replies to your messages are sent to this address.

Internet access - The IAP connection used for the mailbox. Choose an IAP from the list. To create an IAP, see 'Setting up your Internet access point' on page 150.

Default account - Choose a mail account from the list. When you set up an account for the first time, it will be the default until more accounts are created.

Tip: Outgoing mail servers are typically called SMTP servers or hosts and incoming mailservers are called POP3 or IMAP4 servers.

Tip: If you prefer reading your mail messages and replying to them while connected to your remote mailbox, select *Mail headers (stay online)*. If you prefer to retrieve the messages and disconnect, select *Messages*.

Servers page

Mail account type - Defines the mail protocol your remote mailbox service provider recommends. The options are *POP3* and *IMAP4*.

Outgoing mail server - The IP address or host name of the computer that sends your Internet mail.

Incoming mail server - The IP address or host name of the computer that receives your Internet mail.

Retrieve

Retrieve - Specifies what will be retrieved from the remote mailbox when the connection is established. The options are *Mail headers (stay online)*/ *Messages*/ *Messages and attachments*. The *Messages* option is available only if the mailbox type is IMAP4.

Max. size of mail - The maximum size of a message which is retrieved. The minimum is 1 KB and maximum 1000 KB.

Sync. mails in Inbox - Specifies the number of message headers to be retrieved from Inbox of the remote mailbox. The options are *All*/ *None* or you can define the appropriate number of messages to be retrieved.

Sync. mails in folders - Specifies the number of message headers to be retrieved from the folders of the remote mailbox excluding Inbox. The options are *All*/ *None* or you can define the appropriate number of messages to be retrieved.

Advanced page

Default mail type - The type of mail that you can write and send from your communicator. The options are *Plain text (no MIME)*/ *Plain text*/ *Formatted text (HTML)*.

Send mail - How mail is sent from your communicator. The options are *Immediately*/ *During next connection*/ *Upon request*.

Include signature - Specifies whether your signature is attached to sent mail. The options are *No*/*Use my contact card*/*Custom*. If you choose *Custom*, you can press **Edit signature** to modify the signature file.

Request read report - The options are *Yes*/*No*. If you choose *Yes*, you will receive a notification when the recipient has opened your mail. You can only receive a notification if the recipient's e-mail application supports this feature.

Allow report requests - The options are *Yes*/*No*. If you choose *No* the sender of a message you receive will not get a notification, when you open the message.

Copy to my mail address - The options are *Yes*/*No*.

Secure login (APOP) - Used with POP3 protocol to encrypt the sending of passwords to a remote mail server. The options are *Yes*/*No*.

Secure connection (TLS) - Used with POP3, IMAP4 and SMTP protocols to secure the connection to a remote mailbox. The options are *Yes*/*No*.

IMAP4 folder path - Define the location of the IMAP mail folder here, if not defined automatically. This option is available only if the mailbox type is IMAP4.

Edit an account

1 Press the Menu key in the main view of Messaging and select *Tools* > *Account settings...*. A list of accounts opens.

2 Select the account you want to edit and press **Edit**.

3 Define the settings on the *General*, *Servers*, *Retrieve* and *Advanced* pages explained above.

4 Press the Esc key to discard any changes.
Press **Done** to accept the changes you have made.

Note: You cannot edit mailbox settings when online.

Write and send new mail

Tip: If you cannot send mail from your communicator, check first that your mail address is correct in Mail settings. See page 188.

1 Press **Write mail** in the main view of Messaging. The mail editor opens, see Figure 82.

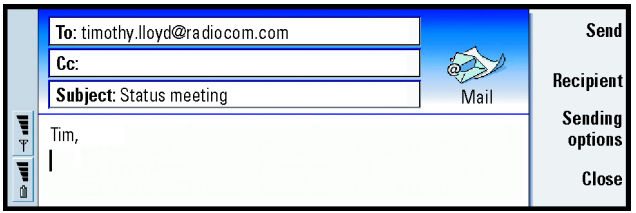

Figure 82

Tip: To see how to select recipients, see page 181.

2 Write the mail message.

3 Press **Recipient** to select the recipient or recipients of the message, or type in the name or mail address into the *To:*, *Cc:* and *Bcc:* fields. You can move from one insertion field to another by pressing the Tab key.

4 If you wish to adjust the sending options of the mail message, press **Sending options**. A dialog with two pages opens, see page 193.

5 Press **Send**.

Tip: You can zoom in the mail editor.

Note: You cannot enter accented characters, such as é or ä, into mail addresses.

Recipients

There are three hierarchy levels of recipients in a mail message:

To: - Message is sent directly to the recipient.

Cc: - A copy of the message is sent to the recipient, and the recipient's name is visible to other recipients of the message.

Tip: To hide or show *Cc:* and *Bcc:* fields in the mail editor, press the Menu key and select *View* > *Show Cc field* or *Show Bcc field*.

Bcc: - A copy of the message is sent to the recipient, but the recipient's name is not visible to other recipients of the message.

Note: The addresses you have entered are checked against your contacts database once you press **Send**. Names which do not match with the contacts database, or addresses which do not have '@', should be removed from the address fields.

If a name you have entered in one of the address fields matches a group name, the name is replaced with the mail addresses of the group members.

Style of sent mail

You can format only HTML messages. Press the Menu key and select *Format* > *Formatting*. This opens the following options for formatting: *Bold*, *Italic*, *Underline* and *Bullets*.

To set a preferred font for plain text and HTML mail, press the Menu key and select *Tools* > *Preferences*....

To align a mail message, press the Menu key and select *Format* > *Alignment*. This opens the following options: *Left*, *Center* and *Right*.

Tip: To format the font for a selected text area, press the Menu key and select *Format* > *Font*....

Sending options

The options in the *Sending options* dialog contain values set in mail settings, as explained on page 193. Press **Sending options** to open the dialog. Any changes you make in this dialog affect only the current mail message you are about to send.

Note: Changing the options in the Sending options dialog affects the format of the message when it is opened by the recipient. For example, the format may affect the legibility of the characters.

Tip: In the case of PC mail message see page 199, *Priority* and *Mail account in use* are the only options you can change.

Message page

Priority - The priority of a message. The options are *High*|*Normal*|*Low*.

Message type - The type of the message. The options are *Plain text (no MIME)*|*Plain text*|*Formatted text (HTML)*.

Request read report - Specifies whether to add to the outgoing mail, a request for you to receive notification, if the recipient has opened your mail.

Delivery page

Mail account in use - The remote mail service which is used for sending this message.

Note: Changing the mail account does not change the default options in other fields of this page.

Send mail - When the message will be sent. The options are *Immediately*|*Upon request*|*During next connection*.

Retrieve mail

Tip: Delete mail regularly from your communicator to free up memory space. For more information, see 'Avoid low memory' on page 182.

Mail addressed to you is not automatically received by your communicator, but by your remote mailbox. To read your mail, you must first connect to the remote mailbox and then select the messages you wish to retrieve into your communicator. Connection to a remote mailbox is established via a data call.

WARNING: Messages that you mark as deleted when offline will also be deleted from the remote mailbox server, when online. To delete local mail messages without deleting remote mailbox files, see 'Avoid low memory' on page 182.

Connect to a remote mailbox

1 Select the remote mailbox in the left frame of the main view of Messaging.

2 Press **Retrieve mail**.

3 When the connection to the remote mailbox has been established, press the Menu key and select *Retrieve* > *New* or *Selected* or *All* mail.

4 When all the mail you have requested is retrieved, press **Go offline**.

Note: Pressing **Go offline** does not necessarily disconnect the phone, if there are other applications open that use the connection. Press the Menu key and select *File* > *Disconnect* to hang up.

Tip: If you do not specify a password when initially connecting to the remote mailbox, a dialog opens. Type in the password and press **OK**.

Subscribe and unsubscribe to remote mailbox folders

If your remote mailbox is of IMAP4 standard, you can edit and synchronize remote inbox folders in your communicator. To do this, you need to subscribe to the folders and make them visible in your communicator.

1 Go online.

2 Press the Menu key and select *Receive* > *Folder subscriptions...*. A list of folders in the remote mailbox opens.

3 Select the folder.

4 Press **Subscribe**. If you have already subscribed to the folder, press **Unsubscribe** to cancel the subscription.

5 Press **Go offline** and **Go online** to include the new subscribed folders in the list.

Tip: To create new folders in your remote mailbox, go online, press the Menu key and select *File* > *Folder*. You can now choose whether to *Create new folder...* or *Rename folder...*.

Read mail

You can read, reply to and forward mail in the mail viewer.

To read received messages, select the message in the Inbox and press **Open**.

The mail viewer shows the message in a read-only state, which means that you cannot edit it or the attachments linked to it.

If there is a Web link in the message, you can open it by going to that link and pressing **Use**.

Tip: You can create new contacts from the other recipients of a received mail; press the Menu key and select *Tools* > *Add to contacts*.

If there is a fax, mail or short message link in the message, you can write a fax, mail or short message by selecting the link and pressing the corresponding command button. This opens the appropriate editor where the recipient field is completed using the fax, mail address or GSM number in the link.

To delete the message, press **Delete**.

WARNING: Messages marked as deleted when offline will also be deleted from the remote mailbox server, when online. To delete local mail messages without deleting remote mailbox files, see 'Avoid low memory' on page 182.

Reply to mail

1 Select the mail message in Inbox and press **Open**. The mail viewer opens.

2 Press **Reply**. The mail editor opens.

If you wish to reply to all the recipients, not just the sender of the mail message, press the Menu key and select *File* > *Reply to* > *All recipients*.

Tip: To forward mail, press the Menu key and select *File* > *Forward*.

3 Edit the message in the mail editor and press **Send**.

Tip: To search and replace text in a mail, press the Menu key and select *Edit* > *Find...*.

Note: When replying to a mail message, HTML messages are included as attachments.

Style of replied to, and forwarded mail

You can edit the style of replied to, and forwarded mail.

1 Press the Menu key and select *Tools* > *Preferences...*. A dialog opens.

2 Define the following:

Include message in reply - If you choose *Yes*, the original message is included in the reply to the message. The options are *Yes*/*No*.

HTML normal font - Defines the default font size and family used in HTML messages. Note that HTML messages may contain tags that change what you set in this option.

HTML font size - Defines the size of the font used in HTML messages.

Plain text font - Defines the font used in plain text messages.

Plain text font size - Defines the size of the font used in plain text messages.

Mail attachments

You can send most documents and messages you write in the other applications of your communicator as mail attachments.

WARNING: Mail attachments may contain viruses or they can otherwise be harmful to your communicator or PC. Do not open any attachment, if you are not sure of the trustworthiness of the sender. For more information, see 'Date and time' on page 235.

Add mail attachments

1 Press the Menu key in the mail editor and select *Attachments* > *Insert file...*.

2 Search and select the file you wish to attach to the mail.

Tip: To edit mail attachments, press the Menu key and select *Attachments* > *Edit*. You cannot edit attachments in received mail messages.

View and save mail attachments

Attachments always appear at the bottom of an open mail message.

You can view the attachments using the appropriate viewers, if available.

Tip: To open an attachment for viewing, select it with the Arrows key and then press **Enter**.

1 Open the mail message containing attachments and press **Attachments**. A dialog opens.

2 Press **Open** to open the attachment for viewing.

Press **Save** to save the attachment.

Press **Delete locally** to delete the attachment from your communicator; the attachment is not deleted from your remote mailbox.

Working online and offline

Working online means working with your communicator connected to a remote mailbox via Internet connection.

When you work offline which means that your communicator is not connected to a remote mailbox, you can delete only messages, not folders. When online, you can delete, rename or create new folders in your remote mailbox.

Note: Any changes you make in the remote mailbox folders while offline take effect in your remote mailbox the next time you go online and synchronize. For example, if you delete a mail message from your communicator when offline, the message will be deleted from the remote mailbox the next time you connect to the mailbox.

If you want to delete a message from your communicator to save memory, see 'Avoid low memory' on page 182.

Managing your mail offline enables you to save in connection costs and work in conditions that do not allow data connection, such as on aircraft. For information about using your communicator on an aircraft, see 'Flight profile' on page 113. Remember also relevant warnings, see 'Important safety information' on page 279.

PC Mail

Although you can send and receive Internet mail over a data call, you cannot send PC mail from the communicator. PC mail is mail you can read, write and edit on your communicator, but which you can send and receive only through a PC, the next time you synchronize your communicator with the PC.

Mail synchronization with your PC

Synchronization is the process of making the contents of your mail messages and mail folders identical on both your communicator and your PC. This is done by copying and combining information between the two machines. For more information, see PC Suite Guide on the sales package CD-ROM.

Mail synchronization copies the messages between your communicator and your PC E-mail program to allow you use either machine for reading and replying to messages.

You can convert Internet mail to PC mail so that it is synchronized with a PC, or convert PC mail to Internet mail so that it can be sent directly from the communicator. All synchronization settings are defined on the PC. The only setting you can do on your communicator is to delete the account you are using.

Create new PC mail

Note: You need to have set a mail account on your remote PC to be able to create new PC mail.

1 Press the Menu key in the main view of Messaging and select *Write* > *New message*.... A selection list appears.

2 Select *PC mail* and press **OK**.

If you have more than one PC account, a dialog opens indicating which PC account will be used when sending the PC mail. Select the PC account and press **OK**.

3 Write the PC mail in the mail editor.

Convert to PC or Internet mail

Tip: You can view and edit PC mail just like Internet mail on your communicator.

Note: HTML messages cannot be converted since PC mail does not support the sending of HTML messages. You must change the message type to plain text or non-MIME type in the Sending options dialog, before you can convert the message to PC mail. See page 200 for more information.

PC and Internet mail appear together in the folders.

1 Select the mail message or messages you wish to convert.

Tip: PC mail is distinguished from Internet mail by a different icon.

2 Press the Menu key and select *Tools* > *Convert to internet mail* or *Convert to PC mail*, depending on the type of mail you wish to convert.

3 If there are multiple PC mail or SMTP services defined, a selection list of available services defined in the messaging server will be shown. Select the service and press **Convert**.

Note: You can convert several mails at the same time, but make sure that the mails are of the same type, either Internet or PC mail.

Short Message Service

The Short Message Service (SMS) enables you to send and receive short messages over the digital wireless system.

Short messages can be sent or received even during voice, data, and fax calls. Messages can be read in any mobile phone that has the capability. If the receiving phone is switched off at the time of sending, the short message center continues to attempt to send the message until the validity period allowed by the system expires.

Note: If you want to send text you have written or edited in another application as a short message, all embedded objects or any rich formatting will be lost. You cannot send attachments as short messages, either.

Tip: Your service provider may send you smart messages in the form of short messages; these messages may include, for example, configuration settings. For details, contact your service provider.

Write and send a new short message

Note: You cannot change the font, style or format of short messages.

1 Press **Write short message** in the main view of Messaging. The SMS editor opens, see Figure 83.

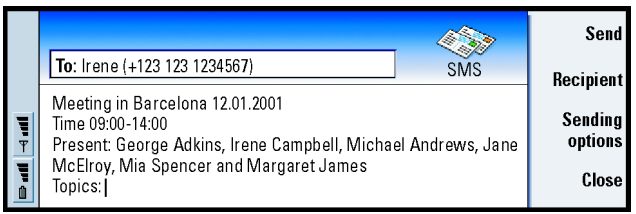

Figure 83

Tip: When sending a short message that contains special or accented characters to an older mobile phone, the older phone may not be able to view the message. In this case, send the message without special or accented characters.

Tip: You can zoom in the SMS editor. Press the Menu key and select *View* > *Zoom* > *Zoom in* or *Zoom out*.

Tip: To define a specific date and time when the short message will be sent, select *Scheduled* in the *Send short message* option.

Tip: Your Inbox shows the date of received short messages and the time of the short messages received on the current day. To view when it was sent, open the message in the SMS viewer.

Tip: To create a contact card of the sender of a short message, press the Menu key and select *Tools* > *Add to Contacts...*.

2 Press **Recipient** to select the recipient, or type the number directly into the header of the message.

3 Press the Arrows key to move down to the message field and write the short message.

To view the length of the current message, press the Menu key and select *View* > *Message length*.

4 If you wish to adjust the sending options of the short message, press **Sending options**. A dialog with two pages, *Sending options* and *Advanced* opens. For details, see SMS settings on page 203.

5 Press **Send**.

Receive and read short messages

Short messages are received automatically, provided that this service is available and that the phone is on and within system coverage.

When a new short message arrives, a tone will sound - unless the device is set to a silent profile - and an information note is shown on the display.

The SMS viewer shows the message in a read-only state, which means that you cannot edit it.

Received short messages can also contain some special text strings such as URLs. If a URL is highlighted when you move the cursor over it, you can open the corresponding link by pressing **Use**.

Reply to short messages

Open the message, press **Reply** and write another short message.

If the received message has a reply path, the note *Reply via same center* is shown in the header of the message.

Tip: When replying to a message, you can choose whether you want the text of the received message to be in the reply. Select *No* in *Include original in reply* in SMS settings to minimize the length of the reply.

Short messages on the SIM card

To move and copy messages from the SIM card to the Inbox, press the Menu key and select *Receive* > *Short message* > *SIM messages*. To move, copy or delete messages, press the corresponding command button.

SMS settings

Any changes you make to SMS settings affect the way in which your short messages are sent and received.

1 Press the Menu key in the main view of Messaging and select *Tools* > *Account settings...*.
2 Select *Short message* and press **Edit**. A dialog with two pages opens. Define the following:

General page

Press **Service centers**, which opens a dialog where you can define new message centers, as well as edit and delete existing ones. All message centers are listed by name and number.

Service center in use - Defines the service center that is used for delivering the short messages.

Delivery report - If you choose *Yes*, you can view the status of the sent message (*Pending*, *failed*, *Delivered*) in the system log. If you choose *No*, only the status *sent* is shown in the system log.

Tip: To open the system log, press the Menu key and select *Tools* > *Log*.

Send short message - You can select when you want the message to be sent. The options are *Immediately*/*Upon request*/*Scheduled*. When *Scheduled* is selected, you must define a *Date*.

Validity period - If the recipient of a message cannot be reached within the specified validity period, the message is removed from the short message service center. If *Maximum* is chosen, the validity period is set to the maximum value allowed by the message center. Note that the system must support this feature. The options are *1 hour*/*6 hours*/*1 day*/*1 week*/*Maximum*.

Advanced page

Reply via same center - This system service allows the recipient of your short message to reply using your message center. If you choose *Yes* and the recipient replies to your message, the return message is sent using the same service center number. This requires that the recipient has subscribed to the Short Message Service, is able to a reply to a message, and uses a device which supports this feature. Note also that the system must support this feature.

Include original in reply - Specifies whether text in the received short message is quoted when you make a reply. If you choose *Yes*, the contents of the message body are copied to a new short message.

Concatenation - If set to *No*, messages longer than 160 characters are sent as several short messages. If set to *Yes*, messages that are longer than 160 characters are sent as several messages, but if the recipient has a Nokia communicator, the messages are received as one long message.

10. Office

Office contains the Document, Sheet, and Presentation viewer applications, which are all compatible with Microsoft Windows. Office also contains a File manager application for file and folder management tasks like moving, copying, and renaming files and folders.

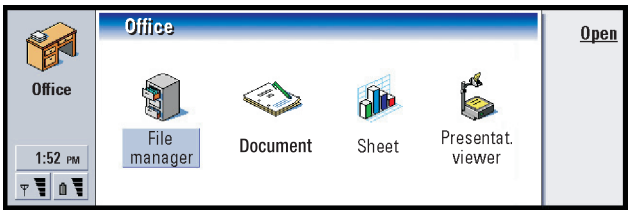

Figure 84

Document

You can use Document to write new and edit existing text documents. You can insert and view images and other files in the documents. You can also send and receive documents as fax, SMS, mail, PC mail, or via infrared.

You can open, edit and save documents created with Microsoft Word for Windows versions 95, 97 and 2000. Note that not all features and formatting of the original documents will be supported. Documents made with other versions of Microsoft Word can only be viewed. For information on other file format conversions, see the PC Suite Guide on the sales package CD-ROM.

Tip: You can use the clipboard command shortcuts Ctrl+x, Ctrl+c, and Ctrl+v to cut, copy, and paste text.

Create a new document

When you open the Document application, a new file is opened. You can start writing immediately.

You can modify the style of a document on a font and a paragraph level. You can use different fonts, font sizes, and styles. You can apply different predefined or user-defined styles by either modifying particular pieces of text separately or by using a template on which the style of the text is based (see page 208).

Change fonts

1 Press **Font** in the document you are creating or editing. A dialog opens, see Figure 85.

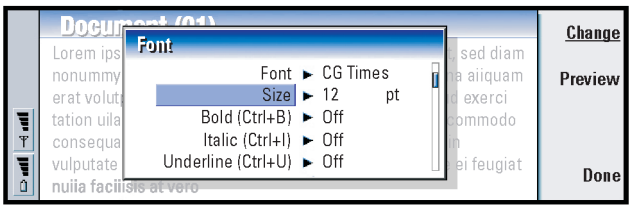

Figure 85

2 Press **Change** to change the value of a list item.

To see the effect of the changes you have made, press **Preview**.

3 Press **Done** to save the changes you have made.

Change text style

1 Select the text whose style you want to change.

2 Press **Style**. A list of choices in alphabetical order opens.

3 Select a style option from the list and press **Set**:

These are the default values of the style options in the list:

Style option	Font	Point size	Bold	Italics	Under-lined	Justifi-cation
Normal	URW Sans	12 pt	Off	Off	Off	Left
Header	URW Sans	10 pt	Off	Off	Off	Left
Footer	URW Sans	10 pt	Off	Off	Off	Left
Heading 1	URW Sans	16 pt	On	Off	Off	Left
Heading 2	URW Sans	14 pt	On	Off	Off	Left
Heading 3	URW Sans	12 pt	On	Off	Off	Left
Title	URW Sans	18 pt	On	Off	Off	Centered

Create a new or modify an existing style option

1 Press **Style**.

2 To create a new style option, press **New**. Or, to modify a style option, select the style and press **Edit**. A dialog opens.

3 Give the style option a new name by typing over the old name. Note that you cannot edit the names of the default styles.

Press **Format** to view a list of style values you can change.

4 Press **Change** to change the values of the following: *Font*, *Alignment*, *Indents*, *Tabs*, *Line spacing*, *Borders*, *Bullets*, and *Outline level*.

5 Press **Done** to confirm the changes.

Example: You may have a company template which shows the company name and defines a particular layout.

Templates

You can use templates and save documents as templates when creating and editing documents.

To select a template, press the Menu key and select *File* > *Templates* > *Select template...*. A list of available templates opens. Select a template and press **OK**.

To save a document as a template, press the Menu key and select *File* > *Templates* > *Save as template...*.

To delete a template, go to File manager. See page 220.

Insert an object

Tip: To resize an image after insertion, press the Menu key and select *Edit* > *Object* > *Object details...*.

1 Press **Insert object** in the document you are creating or editing. A dialog opens. See Figure 86.

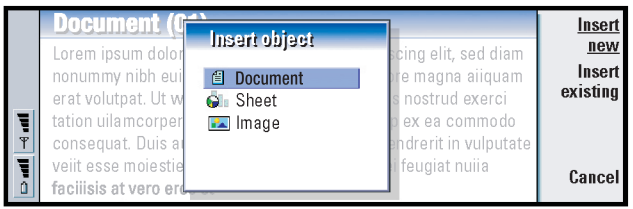

Figure 86

2 Select from the list the type of object you want to insert.

3 Press **Insert new** to open the corresponding editor.

Press **Insert existing** to open a list of files. Only files which you can insert are listed.

Note: Objects in a document are not links but embedded attachments, which may increase the file size of the document dramatically.

Hide or make visible text markers

To hide or make visible markers that are used in editing within the document, proceed as follows.

1 Press the Menu key and first select *Tools* > *Preferences...*. A dialog with two pages opens.

2 Set the following options on or off:

Basic options page – *Show tabs*, *Show spaces*, and *Show paragraph marks*.

Advanced options page – *Show forced line breaks*, *Show non-breaking spaces*, and *Show hard hyphens*.

View the outline of a document

1 Press the Menu key and select *View* > *Outline...*. A tree structure of the document opens.

2 To show more details, press **Expand**.

To show less details, press **Collapse**.

To open a selected point in the document, press **Go to**.

3 Press **Close** to return to the document view.

Tip: To open a specific page in the document, press the Menu key and select *Tools* > *Go to...*.

Paginate

After creating a new document, you can divide it into pages. Press the Menu key and select *Tools* > *More* > *Paginate*. This command will also update the page numbering.

Sheet

In Sheet you can work and store your data in a file that is called a workbook. Each workbook contains at least one worksheet. A workbook can also contain chartsheets; a chartsheet is a spreadsheet file containing a chart that is based on data from a worksheet.

You can open, edit and save files created with Microsoft Excel for Windows versions 95, 97 and 2000. Note that not all features and formatting of the original files will be supported. Files made with other versions of Microsoft Excel may only be viewed. For information on other file format conversions, see the PC Suite guide on the CD-ROM.

Workbooks

Tip: To add a workbook to the Desk application, press the Menu key and select *File* > *Add to Desk*.

To create a new workbook, press the Menu key and select *File* > *New workbook*.

To open an existing workbook, press the Menu key and select *File* > *Open*.

To save a workbook, press the Menu key in the worksheet view and select *File* > *Save*.

To send a workbook as mail or via infrared, press the Menu key in the worksheet view and select *File* > *Send*.

Worksheets

To create a new worksheet in a workbook, press the Menu key and select *Insert* > *New worksheet*.

Entering data

To enter data, select a cell with the Arrows key and start typing the data in the selected cell.

To confirm what you have entered into a cell, press Enter, **OK**, or go to another cell with the Arrows key. To dismiss the action, press Esc or **Cancel**.

You can also enter a formula to perform operations on worksheet data. Sheet application provides some predefined, or built-in, formulas, which are known as functions.

To insert a function, press **Insert function**. A dialog opens. See Figure 87. The function categories you can choose from are as follows: *All*, *Financial*, *Date and time*, *Mathematical*, *Statistical*, *Lookup*, *Text*, *Logical*, and *Information*. Each category has a set of functions, which you can see from the list next to *Function name*. Select the function you want and press **Close**.

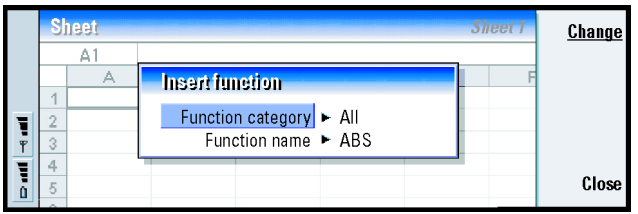

Figure 87

In a formula, you can enter constant values or cell references. A cell reference tells Sheet where to look for the values or data you want to use in the formula. To enter a reference to a cell or cells in a formula:

1 Go to the cell you want to edit, and press **Edit.**

2 Move the cursor to the place where you want to insert a reference, and press **Point reference**.

Example: You might want to sum up figures in cells C2 to C4 in cell C5; select cell C5, press **Point reference** and select the cell range from C2 to C4. Press Enter or **OK** to confirm the action. The SUM will now appear in C5.

3 Select the cells that contain the values you want to use. The focus remains in the cell you are editing. Press **Enter** or **OK** to confirm the action.

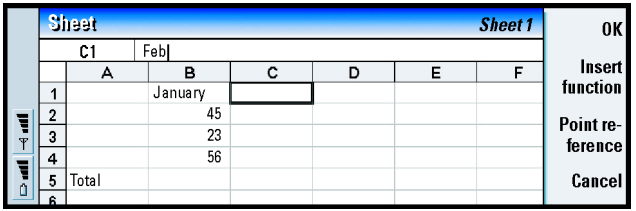

Figure 88

Selecting cells

There are two ways to select a cell or a range of cells in a worksheet:

- Press the Menu key and select *Edit* > *Select*. Then enter the selection range or choose a range from the list.
- Press and hold the Shift key, and increase the selection frame with the Arrows key.

Example: To select column A, enter A:A. To select row 1, enter 1:1. To select columns B and C as well as rows 2 and 3, enter B2:C3.

To select entire rows or columns, press and hold the Shift key, and select the desired row or column headings with the Arrows key.

To select the entire worksheet, use the shortcut Ctrl + A.

The selection is cleared when you press the Arrows key or Tab key.

Insert cells

1 Select a number of cell(s) that you want to insert into the worksheet.

2 Press the Menu key and select *Insert* > *Cells*. A dialog opens.

3 Define whether you want the inserted cell or cells to appear above (*Shift cells down*) or left (*Shift cells right*) of the selected range.

To insert an entire row(s) or column(s), select either *Entire row* or *Entire column*.

4 Press **OK** to accept the insertion and **Cancel** to dismiss it.

Sort cells

You can rearrange the order of cells from top to bottom and left to right.

1 Select the range.

2 Press the Menu key and select *Tools* > *Sort*.

3 Select either *Top to bottom* or *Left to right*. A dialog opens.

4 Define the sorting criteria.

5 Press **Close** to do the sorting.

Search for data

1 Press the Menu key and select *Edit* > *Find*. A dialog opens.

2 In the *Find:* field, enter the string you want to search for.

3 Press **Find** to search for the string.

Press **Options** to search the worksheet according to certain criteria.

Press **Replace** to replace the string with something else.

Tip: Pressing **Options** opens up the following options: *Search in values*, *Search in formula*, *Match case*, *Find entire cells only*, *Direction*, and *Search by*.

Clear cells

1 Choose the cell or cells you want to clear.

2 Press **Clear**. A lists of choices appears.

3 To clear both the contents and formats of the cell or cells, select *All*.

To clear only the contents of the cell or cells, select *Contents*.

To clear only the formats of the cell or cells, select *Formats*.

Adjust column width or row height

1 Select the column(s), or row(s).

2 Press the Menu key and select *Format* > *Column width...* or *Row height...*.

3 To increase column width, press **>** on the Arrows key as many times as necessary. To diminish column width, press **<**.

To increase row height, press ∨ on the Arrows key as many times as is necessary. To diminish row height, press ∧.

To adjust the width or height by exact figures, press **Define width**.

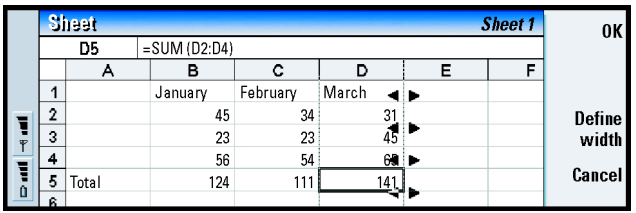

Figure 89

Align cell contents

1 Select the cell or cells.

2 Press the Menu key and select *Format* > *Alignment*. A dialog opens.

3 Define the following options: *Horizontal*, *Vertical*, and *Wrap text to cell*.

Change the appearance of cell borders

1 Select the cell or cells.

2 Press the Menu key and select *Format* > *Cell appearance* > *Borders*. A dialog opens.

3 Define the following options: *Outline*, *Top*, *Bottom*, *Left*, *Right*, and *Line color*.

Change number format

1 Select the cell or cells.

2 Press the Menu key and select *Format* > *Numbers*. A dialog opens.

3 Choose the required format from the list. Depending on the format you choose, you may define the place of the decimal.

Change fonts

1 Select the cell or cells.

2 Press the Menu key and select *Format* > *Font*. A dialog opens.

3 Press **Change** to change the value of a list item.

4 To see the effect of the changes you have made, press **Preview**.

5 Press **Done** to save the changes you have made.

Change background color

1 Select the cell or cells.

2 Press the Menu key and select *Format* > *Cell appearance* > *Background color*. A dialog opens.

3 Choose the color.

Insert page breaks

1 Press the Menu key and select *Insert* > *Page break*. A dialog opens.

2 Define the following options: *Break at column* and *Break at row*.

Note: Since the break is placed above and on the left side of the selected cell, you cannot insert a page break when the cell A1 is selected.

Tip: To change viewer preferences, press the Menu key and select *Tools* > *Settings*. Set the following options on or off: *Show gridlines*, *Show row headers*, *Show column headers*, *Automatic recalculation*, *Show zero values*, and *Show pagination lines*.

Name cells

1 Select the cell or cells.

2 Press the Menu key and select *Insert* > *Name* > *Add*. If the cell or cells already have a name, you can edit the name by selecting *Edit*. A dialog opens.

3 Enter the name.

Name worksheets

1 Press the Menu key and select *Edit* > *Rename worksheet*. A dialog opens.

2 Choose the worksheet from the list and name it.

Delete cells, columns, rows, page breaks, and worksheets

1 Select a cell within the area you want to delete.

2 Press the Menu key and select *Edit* > *Delete*. A dialog opens.

3 Choose from the list what you want to delete.

Go to any sheet or chart within the same workbook

Tip: To view sheets in the Chartsheet view, press **Sheets/Charts**.

1 Press the Menu key and select *View* > *Worksheets* or *Sheets/Charts*. A list opens.

2 Choose a sheet or chart and press **OK** to open the sheet and **Cancel** to dismiss it.

Note: You cannot change the order of the sheets.

Chartsheets

Create chartsheets

There can be seven different kinds of charts: *Line*, *Column*, *Stacked column*, *Bar*, *Stacked bar*, *X/Y scatter*, and *Pie*.

1 Select a range of cells on a worksheet. These will provide the data for your new chartsheet.

2 Press the Menu key and select *Insert* > *New chart*. A dialog opens.

3 Define the following: *Chart name*, *Chart type*, *3-D*, *Background color*, and *Axis color*.

4 Press **Close** to create a new chartsheet and **Esc** to dismiss it.

Edit chartsheets

1 Press **Select object**. A dialog opens.

2 Choose an object from the following list for editing and press **OK**: *Chart*, *Chart title*, *X-axis*,*Y-axis*, *X-axis title*, *Y-axis title*, *Legend*, *Major X-axis gridlines*, *Minor X-axis gridlines*, *Major Y-axis gridlines*, *Minor Y-axis gridlines*, and *Series*. The setting dialog for the selected object opens. See Figure 90 for an example of X-axis settings being edited.

3 To edit the object, press **Change** or press **Enter**. A dialog opens.

To delete the object, press **Delete**.

4 Define the new values.

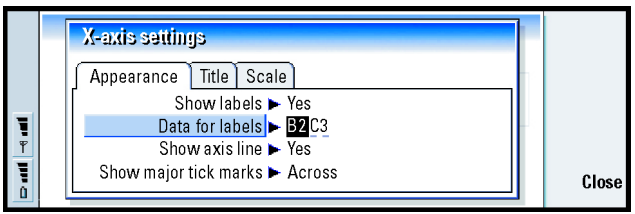

Figure 90

5 Press **Close** to confirm the changes or **Esc** to dismiss them.

Note: You can select only one object at a time.

Tip: You can also press the Tab key and **Enter** to select objects. Press **Esc** to cancel the selection.

Tip: To define the general appearance of a chart, press **Chart settings**. Define the page style and name in the two pages of the dialog which opens.

Replace chartsheet data

You can replace the data on which your chartsheet is based.

1 Press **Sheets/ Charts** and select the worksheet your chart is based on.

2 Select a new data area for the chart from the worksheet, press the Menu key, and select *View* > *Sheets/Charts* to return to the chartsheet.

3 Press the Menu key, select *Tools* > *Replace data*, and press **OK** to confirm the changes or **Cancel** to dismiss them.

Presentation viewer

You can use Presentation viewer to view presentations. You can also send and receive these presentations as mail or via infrared.

You can view documents created with Microsoft PowerPoint for Windows versions 95, 97 and 2000. Note that not all features and formatting of the original documents will be supported.

View a presentation

Press **Open** in the Presentation main view to select and view a document. To close the application, press **Close**.

Tip: You can zoom in and out to get a better view of the presentation.

When a document is opened, the top of the first slide is shown. To view the next slide, press **Next** or **Enter**. To view the previous slide, press **Previous**. To scroll the current slide, use the Arrows key.

Outline view

To get an overview of the whole presentation, press **Outline view**. This opens up a view where the text content of the presentation is in a list format. See Figure 91.

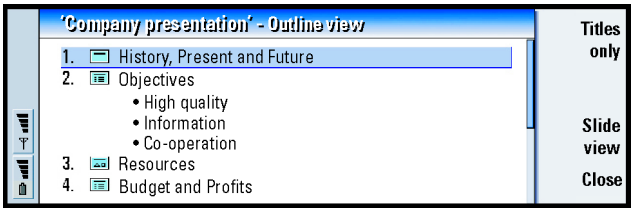

Figure 91

To view only title texts, press **Titles only**. To return to the standard slide show, press **Slide view**.

Search for and view a slide

1 Press the Menu key and select *Tools* > *Go to slide...*. A list of the slides in the presentation opens.

2 Go to the slide you want by using the Arrows key.

3 Press **Go** to open the slide.

View the presenter's notes

To view the presenter's notes along with the slides, press the Menu key and select *View* > *Notes view*.

File manager

Tip: Use File manager together with a memory card to remove files and folders from the communicator memory and thus free memory. See 'Back up and restore data to and from a memory card' on page 225.

You can use File manager to manage the contents and properties of various folders.

The main view has two frames: a folder tree on the left and a file list on the right.

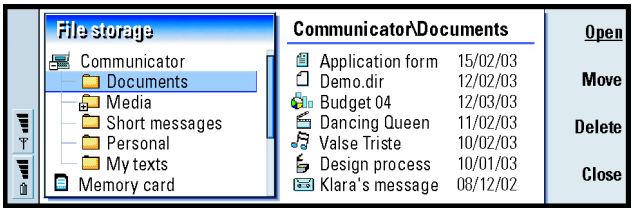

Figure 92

You can toggle between the frames with the Tab key.

Folder view

The folder tree can contain folders from two roots, the communicator and a memory card.

Tip: Avoid saving files to the root of the communicator; use folders instead.

Under the communicator root there is *C:\Documents* folder that contains four default folders: *\Documents\Downloaded*, *\Documents\Photo gallery*, *\Documents\Templates*, and *\Documents\Tones*.

To show or hide subfolders in the folder list frame, press < and > on the Arrows key. The - and + signs in front of the folder icons indicate whether the subfolders are shown or hidden. Folders without either sign have no subfolders, and you can use the Arrows key to switch between the folder view and files view.

Note: Multi-selection is not possible in the folder list frame.

Files view

The file list on the right shows all the files in the source or folder currently selected in the left frame. The title of the file list frame shows the path of the currently selected file. The file list frame also shows the application-related icon, name, and the last modification date of the file.

The files are sorted in alphabetical order by default.

Note: Hidden files are shown only if you press the Menu key and select *View* > *Show all files*.

Tip: To change the sorting order or the value by which the files are sorted (name, date and time, type, and size), press the Menu key and select *View* > *Sort by* or *Sorting order*.

View the contents of a folder

1 Choose a folder in the left folder tree frame and press **Open**.

A view of all the subfolders and files of the parent folder opens. See Figure 93.

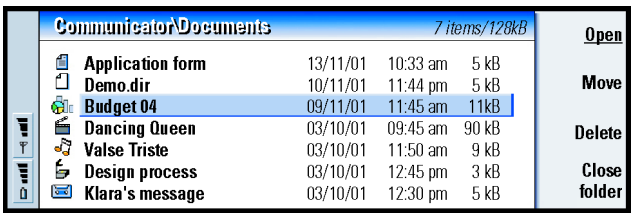
Communicator\Documents
7 items/128kB
Application form 13/11/01 10:33 am 5 kB
Demo.dir 10/11/01 11:44 pm 5 kB
Budget 04 09/11/01 11:45 am 11kB
Dancing Queen 03/10/01 09:45 am 90 kB
Valse Triste 03/10/01 11:50 am 9 kB
Design process 03/10/01 12:45 pm 3 kB
Klara's message 03/10/01 12:30 pm 5 kB
Open
Move
Delete
Close folder

Figure 93

2 To view any possible subfolder, select it and press **Open**.

3 To view parent folders, press Esc.

4 Press **Close folder** to return to the main view.

The title of the folder content view shows the path name and the number of files and subfolders in the folder, together with the total size of all the files in the folder.

This view shows the name, last modification date and time, and the size of a particular file. The icon in front of the name indicates the type of file or subfolder.

Open a file

1 Select a file and press **Open**. The file will then be opened in the corresponding application.

2 To return to the main view, press **Close folder**.

Note: You can open only one file at a time.

Moving files and folders

Tip: For multi-selection, see 'Select several items at once' on page 80.

1 Select folders or files that you want to move and press **Move** in the main view of File manager. A list of folders opens, as shown in Figure 94.

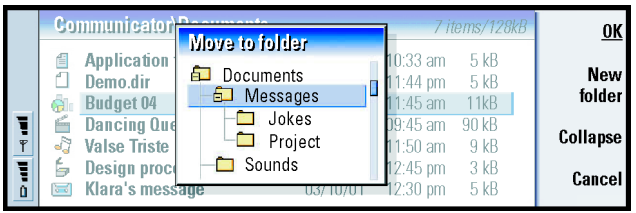

Figure 94

2 Search for a target folder with the Arrows key.

To hide or show the subfolders of a folder, press **Collapse** and **Expand** respectively. You can also navigate in the folder list with the Arrows key and +/- keys.

To create a new target folder, press **New folder**.

3 Press **OK** to confirm the move and **Cancel** to dismiss it.

Create new folders

1 In the main view of File manager select the folder in which you want create a new folder.

2 Select *File* > *New folder*.

3 Name the new folder.

4 To confirm the changes, press **OK**. To dismiss the changes, press **Cancel**.

Rename files and folders

1 Select the file or folder in the main view of File manager.

2 Press the Menu key and select *File* > *Rename*. The cursor now appears at the beginning of the selected file or folder name.

3 Rename the file or folder.

4 To confirm the changes, press **OK**. To dismiss the changes, press **Cancel**.

View the properties of files, folders, and drives

1 Select the file, folder, or drive in the main view of File manager.

2 Press the Menu key and select *File* > *Properties...*. A dialog opens, as shown in Figure 95.

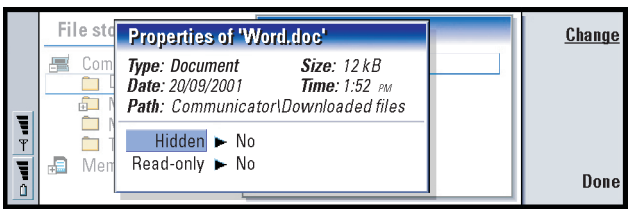

Figure 95

Tip: In the Properties dialog, you can also change a file into hidden or read-only state or a folder into read-only state.

Search for files and folders

1 Choose the folder or memory storage where you want the search to take place.

2 Press the Menu key and select *Tools* > *Find...*. A dialog opens.

3 Enter in the field the string for which you want to search.

4 Press **Options** to define the search in more detail. See Figure 96.

Tip: You can search according to time period, start and end time, and the file type.

Figure 96

Press **Change** to change the value of a list item.

When ready, press **Close**.

5 Press **Find** to start the search.

To interrupt the search, press **Stop**.

6 When the search is over, press **Open** to open the folder or file found.

To start a new search, press **New find**.

7 To return to the main view, press **Close**.

Back up and restore data to and from a memory card

It is advisable to make backups of your communicator data regularly.

Note: The Backup and Restore commands will copy all data. You cannot back up or restore an individual folder. The Backup and Restore commands are recursive; that is, they copy folders and all the contents within the folders. For information about selective backups, selective restoring, and using a PC to back up and restore, see the PC Suite guide on the sales package CD-ROM.

To be able to back up to and restore from a memory card, the card should be inserted in the communicator. For details, see 'Inserting a memory card' on page 7.

1 Press the Menu key and select *Memory card* > *Backup to memory card...* or *Restore from memory card...*, depending on what you want to do. A dialog opens.

2 If you are making a backup, look for a backup folder on the memory card by pressing **Change** or type in the name of a new folder in the *Backup folder* field.

   If you are restoring data to your communicator, select the folder in the communicator into which you want to restore your data. Normally you should select the root folder.

3 Press **Backup** to back up all the communicator data to the memory card.

   Press **Restore** to restore all the backed-up memory card data to the communicator.

4 Restart the communicator by removing the battery and replacing it again.

Lock a memory card

You can protect a memory card with a password to prevent unauthorized access.

Note: Not all memory cards support password protection.

1 Press the Menu key and select *Memory card> Security> Change password*.... A dialog opens.
2 Type your password in the *New password* field and type it again in the *Confirm password* field.
3 Press **OK**. The new password is set.

To remove password protection, press the Menu key and select *Memory card> Security> Remove password*.... Type your password and press *Remove*.

Note: Use a password that is easy for you to remember but difficult for others to guess. If you forget your password, the only way to use your memory card again is to format the card. **Formatting deletes all data from the card!** To format a memory card press the Menu key, select *Memory card> Format memory card*.... and press **Format**.

11. Extras

Extras contains the following applications: Calculator, Clock, Control panel, Recorder, Imaging, Cell broadcast, RealOne player, and Fax modem.

Most of the new applications that you install will be added to the Extras application group. For more information on applications available on the sales package CD-ROM, see Software on CD-ROM Guide in the Using Nokia 9290 Communicator section of the CD-ROM.

Figure 97

Clock

The Clock shows the time and date in your home city and country or region, as well as in several other cities and countries or regions in the world. The Clock also includes an alarm clock.

To set the current date and time for your communicator, press the Menu key and select *Tools* > *Date and time...*.

Tip: To install applications, see section 'Install/Remove software' on page 236.

Tip: To choose the clock type, press the Menu key and select *View* > *Clock type* > *Digital* or *Analog*.

Tip: To turn off a sounding alarm, press **Stop** or any key on the keypad of the phone cover. Press **Snooze** to silence the alarm for five minutes.

Tip: The world map shows the currently selected city in cross hairs.

Set an alarm

1 Press **Alarm clock** in the main view. An alarm clock view opens.

2 The currently active alarms are listed next to the clock.

3 To create a new alarm, press **New alarm** or to edit an alarm, press **Edit alarm**.

4 Define the *Time* of the alarm and the frequency in *Occurrence* and *Day* fields. Define also the *Description* displayed when the alarm goes off.

5 Press **Done** to accept the set alarm.

Change your home city

If your home city and time settings on your communicator are not set correctly, you must first set your home city and then set the time, since your home location defines the time zone used.

1 Go to the **World clock** main view.

2 Press **Change city**. A cities view opens. See Figure 98.

Figure 98

3 Type the city in the search field or scroll the list and press **Select** when ready.

4 Press **OK** to accept the change of time zone or **Cancel** to dismiss it.

Note: For more detailed information about Clock, see the Nokia 9290 Communicator help.

Calculator

There are two modes in Calculator: desk calculator for simple arithmetic operations and scientific calculator for more complicated mathematical calculations.

There are two ways to perform calculations, either by typing the characters in the input field or selecting symbols from the function map. A calculation is executed by pressing **Enter** or **=**.

The calculation and its result can be seen on the output sheet on the left. You cannot write in the output sheet, but selection is possible.

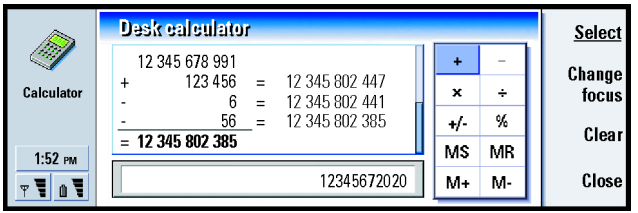

Figure 99

To move between the input field, output sheet, and function map, press the Tab key.

The input field is never empty in the desktop calculator: it contains either the result of the previous calculation or a zero (0) if you have pressed backspace.

Note: For more detailed information about Calculator, see the Nokia 9290 Communicator help.

Control panel

In the Control panel you can view or modify the following: *Security*, *Data call restriction*, *Certificate manager*, *Date and time*, *Install/Remove software*, *Internet access*, *Profiles*, *Display*, *Accessories*, *About product*, *Memory*, *Regional settings*, and *Default folder*.

Modifying these features affects the operation of your communicator across all the applications.

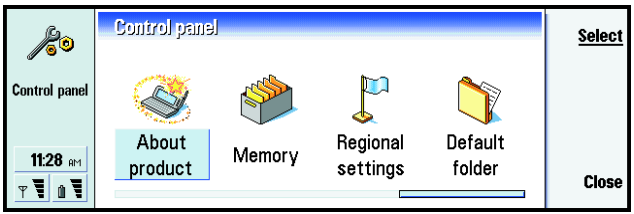

Figure 100

To open a program for editing, select it with the Arrows key and press **Select**.

Security

Here you can define the phone security level of your communicator.

IMPORTANT: The default lock code is **12345**. For security reasons, it is imperative that you change the lock code. Keep the code secret and in a safe place, separate from the communicator.

The codes are shown as asterisks. If you are changing a code, you will be prompted for the current code and then the new code twice.

PIN code request:

If you set the PIN code request *On*, the communicator requests that you enter the code every time you turn on the phone. If you enter the PIN code incorrectly three times in succession, you will need a PUK code to unblock the SIM card. When the SIM card is blocked, you cannot send or receive any documents or calls except calls to preprogramed emergency numbers. Otherwise, the communicator can be used normally. You need the PIN code to change this setting.

Note: This setting cannot be changed, if the phone is switched off or if there is no valid SIM card inserted.

Note: Some SIM cards do not allow you to turn the PIN code request off.

Autolock period:

Determines the security time-out period, after which the communicator will lock. The options are *None*/*2 minutes*/*5 minutes*/*10 minutes*. The last option allows you to define the number of minutes yourself. When the communicator is locked, you can make emergency calls to predefined numbers using the cover phone. You can also answer incoming calls and make emergency calls using the Telephone application. All other actions are blocked. The timer is reset by any input, data transfer, printing, and so on. You need the lock code to change this setting.

Lock if SIM card is changed:

If set *On*, every time the phone is switched on this security option checks whether the SIM card in the communicator has been changed. If the SIM card has been changed and the new SIM card has not been used with your communicator previously, the communicator locks itself until the lock code is correctly entered. The communicator recognizes five different SIM cards as the owner's cards. You need the lock code to change this setting.

Tip: Changing the PIN code requires that *PIN code request* is selected, the phone is on, and that there is a valid SIM card inserted.

PIN code:

This setting allows you to change the PIN code. The new PIN code must be from 4 to 8 digits long.

PIN2 code:

This setting allows you to change the PIN2 code. The PIN2 code is required to access some functions, such as the call cost settings, which must be supported by your SIM card. If you enter an incorrect PIN2 code three times in succession, you will need a PUK2 code to unblock the PIN2 code. The new PIN2 code must be from 4 to 8 digits long.

Lock code:

This setting allows you to change the lock code. The default lock code is **12345**. The new lock code must be from 5 to 10 digits long. If you enter an incorrect lock code five times in succession, the phone will be locked for five minutes after which you can try again. If you try again within less than five minutes, you have to wait five minutes more before a code can be accepted.

Tip: Changing the restriction password requires that the phone is on and the Call restriction service is activated for your SIM card.

Restriction password:

This setting allows you to change the restriction password. If you enter an incorrect password three times in succession, the password is blocked and you must ask the system service provider for a new password.

Note: Avoid using codes that are similar to emergency numbers to prevent accidental dialing of the emergency number.

Note: Even when the communicator is locked, it is possible to call to the emergency number preprogramed into the phone (for example, 911 or other official emergency number).

Data call restriction

Here you can prevent or allow the following data call types:

Note: You need a restriction password to modify these settings.

Outgoing calls - When activated, prohibits making data calls.

Incoming calls - When activated, prohibits receiving data calls.

International calls - When activated, prohibits making international calls.

Incoming calls when roaming - When activated, prohibits receiving calls when roaming.

International except to home country - When activated, prohibits making international calls to all countries except to the country that has been defined as the home country.

Note: Calls described here as international may in some cases be made between regions of the same nation.

Tip: Use data call restriction to limit the use of the phone if you lend it to someone temporarily.

Tip: To check the current status of a restriction option, select the option and press **Check status**.

Certificate manager

With Certificate manager you can manage digital certificates which you use when connecting to WWW sites, WAP services, mail servers, and when installing software. You need these certificates when you:

- want to connect to an online bank or some other site or remote server for actions that involve transferring confidential information,
- want to minimize the risk of viruses or other malicous software and be sure of the authenticity of software when downloading and installing it.

Note however, that even if the use of certificates makes the risks involved in remote connections and software installation considerably smaller, they must be used correctly in order to benefit from increased security. The existence of a certificate does not offer any protection by itself; Certificate manager must contain correct, authentic, and trusted certificates for increased security to be available.

To open the main view of Certificate manager, press the **Extras** application button, select *Control panel*, and select *Certificate manager*.

The main view lists the currently available certificates and their validity information.

Note: Certificates have a restricted lifetime. If a certificate is marked *Expired* even if it should be *Valid*, check that the date and time in your communicator are correct.

Define the usage of the certificate

1 Select the certificate and press **View details**. A dialog with certificate details opens.

2 Press **Trust settings**. A dialog opens.

3 If you want this certificate to be able to certify WWW sites and mail servers, select *Web browser and Mail*, press **Change**, and select *Yes*.

4 If you want this certificate to be able to certify the origin of a new software, select *Software installation*, press **Change**, and select *Yes*.

Note: Before changing these settings, you must make sure that you really trust the owner of the certificate and that the certificate really belongs to the listed owner.

Check that a certificate is authentic

Certificates are used to verify the origin of WWW pages and installed software. However, they can only be trusted if the origin of the certificate is known to be authentic. If you are adding a new certificate, or want to check the authenticity of an existing certificate, proceed as follows:

1 Select the certificate and press **View details**. A view of certificate details opens.

2 The *Subject:* field identifies the owner of this certificate. Make sure that this is the name of the party to whom you think that this certificate belongs.

3 Scroll the dialog until you see the *Fingerprint:* field.

4 The *Fingerprint:* field uniquely identifies the certificate. Contact the help desk or customer service of the owner of the certificate (see step 2 above) and ask for the MD5 fingerprint of the certificate. Compare the fingerprint with the one shown in the dialog. If they match, the certificate is authentic.

Note: Use this authentication procedure each time you add a new certificate.

Add or delete certificates

To add a new certificate, press **Add**. A dialog opens in which you can search and select the new certificate.

To delete a certificate, select it and press **Delete**.

Date and time

Here you define the current time and date for your communicator.

Time - The current time.

Date - The current date.

Daylight-saving - Determines how the time of your communicator is affected by changes in daylight saving time. The options are *On*/*Off*/*Define summer*. If *Define summer* is selected, you have to enter the dates *Summer starts* and *Summer ends*.

Install/Remove software

With Install/Remove you can install new software or remove installed applications from your communicator. For more information see 'Install/Remove software' on page 35.

Internet access

Here you are able to edit, create new, and delete existing Internet access points.

For details on how this is done, see the Internet section of the Settings checklist delivered in your sales package. For details on IAPs, see 'Setting up your Internet access point' on page 150.

Profiles

Here you can edit profiles. Profiles define the tones and sound level of your communicator in different operating environments.

For details on profiles, see 'Profile settings' on page 101.

Display

Here you define the appearance of the display.

Contrast and brightness page

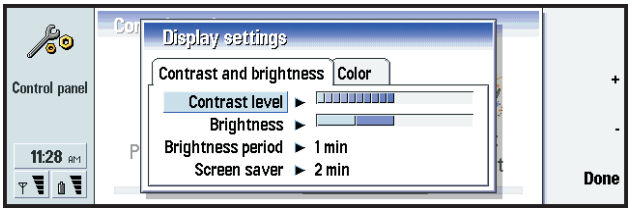

Figure 101

Press **+** and **–** to adjust the bar you are editing.

Contrast level - Pressing **+** increases and **–** decreases the contrast of the display.

Brightness - The brightness level of the display. There are five levels to choose from.

Brightness period - A time period after which, if there has not been any key presses within that time, the brightness will go down to its lowest level. The level will rise to the level defined in *Brightness* as soon as any key is pressed again. The options are *15 sec*/*30 sec*/*45 sec*/*1 min*/*2 min*.

Screen saver - A time period after which the display will blank out if the device remains inactive. The options are *2 min*/*4 min*/*6 min*/*8 min*/*10 min*.

Tip: Selecting a low brightness level and a short time period for the last two options saves the battery and increases the operation time of the communicator.

Colors page

Color palette - The display color scheme. The options are *Blue*/*Red*/*Green*/*Grey*.

Background pattern - The background image of the command button area. The options are *Plain*/*Wheels*/*Sand*/*Water*/*Leaves*.

Accessories

Here you can define some of the settings when you use the Nokia 9290 Communicator with Advanced HF Car Kit CARK-109 or Headset HDC-8L.

For further information on accessories for the Nokia 9290 Communicator, see the accessories section of this guide.

Define the accessories options as follows:

1 Double-click the Accessories icon in the Control Panel. A dialog opens.

2 Select the accessory options that you want to modify. The options are *Headset*/*Car kit*. Press **Edit**.

3 Define the following:

Car kit settings

Automatic answer - Allows you to define whether the automatic answering is on or off when your communicator is attached to the car kit.

Default profile - Allows you to choose the profile that will be automatically selected, when you attach your communicator to the car kit.

Headset settings

Cover display lights - Allows you to define whether the cover display lights are always on or not when the headset is attached to your communicator.

Automatic answer - Allows you to define whether the automatic answering is on or off when the headset is attached to your communicator.

Default profile - Allows you to choose the profile that will be automatically selected, when the headset is attached to your communicator.

About this product

Here you can scroll to see copyright information on the Nokia 9290 Communicator.

Memory

Here you can view the amount of free memory for storing data and installing new software. You can scroll and view the memory consumption of the following details: *Documents*, *Spreadsheets*, *Sounds*, *Faxes*, *Mails*, *Short messages*, *Calendar data*, *Contacts*, *Images*, *Installed applications*, and *Other file types*.

If a memory card is inserted in the communicator, press **Memory card** to view the amount of available memory on the card. Press **Device** to return to view the communicator memory.

If the memory is getting low, you should remove some documents. Before removing, you can print, fax, or mail them, or transfer them to a PC or a memory card.

Regional settings

On these four pages you can define the local time, date, numbering, and currency expressions.

Note: For more detailed information about Regional settings, see the Nokia 9290 Communicator help.

Default folder

With the *Default folder*, you can define the folder which acts as a default saving folder whenever you wish to save a document in your communicator memory. For details on how to manage your files and folders, see 'File manager' on page 220.

Tip: When you have recorded sounds and speech, you can set them as ringing tones. See page 120.

Recorder

The Recorder allows you to record telephone conversations and voice memos. You can also listen to your recordings and other sound files.

The maximum length of a recording depends on the available memory.

You can open files that have been stored in the following file formats: .WAV, .AU, and compressed GSM encoded file format. Compression is done implicitly during the recording process.

Recorder contains all the controls like **Play**, **Stop**, **Pause**, and **Record** that are typically found in recording equipment. Press **Resume** to continue after recording or playback has been paused. See Figure 102.

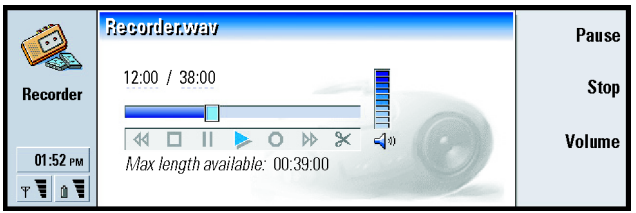

Figure 102

You can change the volume level of the Recorder application by pressing the ^ and v keys on the Arrows key. You can also edit sound files by using the commands in the Edit menu.

WARNING: Obey all local laws governing recording of calls. In some states it is unlawful to record a phone conversation without first advising all call participants.

Note: For more detailed information about Voice recorder, see the Nokia 9290 Communicator help.

Imaging

The Imaging application acts as a file manager for images. Application folders created for storing images are called albums. Images appear as thumbnail images in albums. A thumbnail image is a small image representing the original full size image.

Imaging supports a wide range of image formats, among them JPEG, TIFF, GIF, BMP, MBM, and WBMP.

You can open all commonly used image files directly for viewing. Press **Zoom in** to enlarge the image, **Zoom out** to reduce the image on the display, and **Rotate** to rotate the image.

Tip: Press the Menu key and select *View* > *Zoom* > *Zoom ratio...* to zoom by exact figures.

To view image properties, press the Menu key and select *File* > *Properties...*

You can use the Imaging application for viewing images and handling image albums.

You can delete, rename, copy, and move images from one album to another and create your own favorite albums.

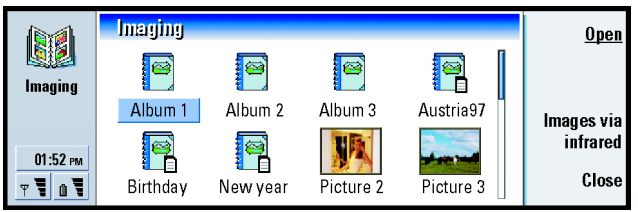

Figure 103

Tip: If you have images or albums in the *\Documents \Photo gallery* directory on an inserted memory card, they also will appear in this view.

Note: Albums can contain only images, not other albums.

You can also receive images via IR. For details, see 'Receive images via infrared' on page 244.

Create a new album

1 Press the Menu key and select *File* > *New album...*. A dialog opens.

2 Define the following:

Name - Name of the album.

3 To save the album in the communicator, press **Create locally**.

To save the album in a memory card, press **Create in mem. card**.

View album contents

Tip: To open an image located outside the image albums, select *File* > *Open from...*.

1 Select the album in the Imaging main view and press **Open**. A thumbnail view of the album contents opens.

2 You can scroll the contents of the album with the Arrows key.

To open an image for viewing, press **Open**.

3 To view the next frame in the image, if available, press the Menu key and select *View* > *Next frame*. To return to the previous image, select *Previous frame*.

4 Press **Close** to return to the thumbnail view.

Move images to and from albums

1 Select the image or images in the thumbnail view with the Arrows key.

2 Press the Menu key and first select *Edit* > *Copy* or *Cut*.

3 Open the target album.

4 Press the Menu key and select *Edit* > *Paste*.

5 If the target album already has an image or images with the same name, a confirmation note appears asking you if you wish to replace the existing image. Choose from the following options:

Replace - The existing image is replaced with the image you are pasting.

Replace all - All existing images are replaced with the same name.

Skip - Skips the image and continues the operation.

Cancel - Cancels the whole paste operation.

Tip: You can select several images with the Space key. You can also use the *Edit* menu commands and the corresponding shortcuts (Ctrl+c, Ctrl+x, Ctrl+v) to move or copy images.

Create new images from originals

You can choose parts of an opened image, save them as separate images, and reuse them.

1 Open an image. Press the Menu key and select *Edit* > *Select image range*. The selection frame is now visible on the image.

2 To move the selection frame, use the Arrows key.

To change the size of the selection frame, press down the Ctrl key and use the Arrows key.

3 To save the frame as an image, press the Menu key and select *File* > *Save as...*. Select *Selected range*.

4 Select the folder you wish to save in, give a name for the new image file, and press **OK**.

Tip: To rename albums or images, select *File* > *Rename...*, define a name, and press **OK**. The file extension cannot be changed.

Resize images

1 Press the Menu key and select *Tools* > *Resize...*. A dialog opens.

2 Scroll with the Arrows key to select the new size and press **Select** or press **Best fit** to fit the image horizontally to the screen.

Receive images via infrared

1 Open the album where you want to save the received file.

2 Press **Images via infrared**. A dialog opens.

3 Select one of the following:

Receive in album - To receive the image and save it.

Receive and mail - To receive the image and send it as an e-mail message.

Receive and fax - To receive the image and send it as a fax.

4 Press **OK**.

Tip: Large images transferred from a digital camera may take too much internal memory to be viewed. To scale the size of the transferred images down to 640x480 pixels, press the Menu key and select *Tools* > *Use VGA*, if the option is not already selected. Note that all cameras may not support this function.

RealOne Player

RealOne Player lets you play audio and video files of the RealAudio and RealVideo formats on your Nokia 9290 Communicator. You can download these files to your Communicator from a compatible PC for playback, or you can play files over the wireless network by streaming them to your Communicator.

Note: Streaming is a network dependent feature that requires a HSCSD (High Speed Circuit Switched Data) network.

The main view of RealOne Player is shown in Figure 104.

For more information and instructions on how to use RealOne Player, refer to the user guide of RealOne Player on the CD ROM in the sales package.

Figure 104

Cell broadcast

Cell Broadcast is an application which you use with the Cell Broadcast Service (CBS) to view the messages and to subscribe to topics of interest. In areas where CBS is provided, you can receive short messages on various topics such as taxis, weather, service provider services, and directory enquiries. See Figure 105.

Tip: Check with your system service provider to see whether CBS is available.

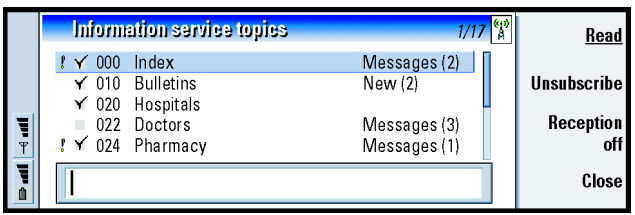

Figure 105

To start or stop receiving CBS messages, in the main view of Cell broadcast, press **Reception on** or **Reception off**.

Tip: You can search for different topics. Enter a name of a topic in the search field.

Press **Read** to read messages and press **Next** or use the commands in the View menu to browse for more messages.

To subscribe, scroll to a topic and press **Subscribe**. A check mark is displayed in the box on the left-hand end of the topic. To unsubscribe, press **Unsubscribe**.

To add, edit, or remove topics when the reception is off, press the Menu key and select *Topic* > *Add topic*/*Edit topic*/*Delete topic(s)*.

Tip: You can quickly mark a topic as a hot topic by first selecting the topic and then pressing Ctrl + M.

If you want to be notified with a dialog displaying a message on a particular topic when a new topic message is received, press the Menu key and select *Topic* > *Mark as hot topic*. The hot topic is marked with an exclamation mark "!".

Create or rename topic lists

To create a new list, press the Menu key and select *List* > *New blank list...* or *New list with selected topics...*

Tip: You can sort the topics by pressing the Menu key and selecting a sorting command in the *View* menu.

To change the name of the list that is open, press the Menu key and select *List* > *Rename list...*

Note that the reception must be turned off.

Open topic lists

To open a different list, press the Menu key and select *List* > *Select topic list*.

In different topic lists, you can still subscribe and unsubscribe topics and set them as hot topics.

Detect new topics

To add new topics automatically, press the Menu key and select *Tools* > *Settings...*. Define the following:

Add new topics to list - The options are *Yes*/*No*. If you select *Yes*, all new topics are added automatically to your current list of topics. If you select *No*, you will receive only the messages concerning subscribed or hot topics that you already have in your topic list.

Language - Select the language of the topics you want to receive. Select *All* to receive topic messages in all languages.

Note: You will receive only the messages that are in the language you have chosen. To make sure you receive all messages, select *All*.

Tip: Create a new empty topic list and select the *Yes* and *All* options in the settings to receive a complete list of topics available in that area.

Fax modem

You can use the communicator as a fax modem with a compatible PC. Your communicator can be connected to a PC via serial cable or by using an infrared connection.

Before your PC can recognize the communicator as a fax modem, you need to install a new modem configuration for your PC. Please refer to your operating system manual for more information. During the installation you may be asked to enter the path to the modem information file. The path on the sales package CD-ROM is: \ Software\PC \Modem drivers. Advanced users can also find a list of supported AT commands in the documentation section of the CD-ROM. Normally there is no need to use these commands.

Note: Using the communicator as a fax modem requires that data calls are supported by the service provider and that this service is active in your SIM card.

Install fax modem driver using cable connection

1 Start Windows.

2 Insert the Nokia 9290 CD-ROM into the CD-ROM drive of the computer and locate the modem information file (mdmn9290.INF). Alternatively, you can find the file on the www.forum.nokia.com Web site.

3 Double-click the *Modems* icon in the Windows Control Panel. A dialog opens. If no modem drivers have been installed on the computer before, continue with step 6.

4 Click the **Add** button.

5 In the field *What type of modem do you want to install?* select *Other*. Click **Next**.

6 Select the option *Don't detect my modem; I will select it from a list*.

7 Click **Have disk...**

8 Click **Browse** and locate the CD-ROM drive with the Nokia 9290 CD-ROM.

9 On the CD-ROM, locate a folder *Software for PC/Modem drivers*.

10 In the Modem drivers folder, select Mdmn9290.inf file and click **Open** or **OK**.

11 In the Install from disk dialog, Click **OK**.

12 In the Install New Modem dialog, select *Nokia 9290 Communicator (Cable)*. If you are using High Speed connection (HSCSD), select a speed higher than 9600 bps and cable connection. Click **Next**.

13 Select the COM port where the serial cable is connected. Click **Next**.

14 Click **Finish**.

15 Remove the CD-ROM from the drive.

Tip: To use High Speed connection, your GSM operator must activate High Speed Data Services on your SIM card.

16 In your communicator, press the Extras application button, select *Fax modem*, and press **Open**.

17 In the Fax modem application, press **Settings**.

18 On the Connection page of the Fax modem settings, define the following:

Connection type – *Cable*

Transfer rate – 19200 or higher. Make sure that this setting is the same both in your communicator and your PC.

Data bits – *8*

Stop bits – *1*

Flow control – *Software*

Press **Done**.

Note: Transfer rate is the speed with which the data is transferred between your communicator and PC. The best transfer rate for normal GSM calls is 19200 or higher. For high speed calls, you should select 115200. Select the same rate in your PC application as well.

19 Your communicator is now ready to be used as a fax modem. Press **Activate** to activate the Fax modem.

Fax modem settings

To open Fax modem, press the **Extras** application button, select *Fax modem*, and press **Open**.

Note that an active PC connection using the fax modem is disconnected after 20 minutes if no data is sent or received. However, an active call is not automatically disconnected.

Note: You cannot change fax modem settings if the fax modem is activated. To change these settings, make sure that fax modem is not active.

Open Fax modem and press **Settings**. A dialog with two pages opens.

Define the following:

Connection page

Connection type - Press **Change** to change this option. The options are *Infrared* and *Cable*. If you select *Infrared*, the rest of the options are automatically set.

If you select *Cable*, also define the following:

Transfer rate - The speed with which the data is transferred between your communicator and PC. The best transfer rate for normal GSM calls is 19200. For high speed calls, you should select 115200. Select the same rate in your PC application as well.

Data bits - Defines how many bits are used to form a byte. The default option, *8*, can typically be used.

Parity - A parity error-checking procedure. The default option, *None*, can typically be used.

Stop bits - Defines number of stop bits used. The default option, *1*, can typically be used.

Flow control - It is recommended to select *Software*. This setting needs to be the same in you PC as well.

Operating system page

Windows 2000 - If you are not using Windows 2000, select **No** and press **Done**. The rest of the options on the page are dimmed. If you are using Windows 2000, select *Yes*. Define also the following information about the connection. The information needed is provided by the host that you are about to call. If you do not have this information try to use the default options.

Connection type - The options are *Normal*/*High speed*. *Normal* is the default.

Remote modem type - The options are *Analog*/*ISDN V.110*/*ISDN V.120*. *Analog* is the default.

Max. connection speed - The default in an analog connection is *Automatic*.

Note: This configuration needs to be redefined if you use a different kind of modem. If the connection settings are incorrect, the call is not created.

Activate or disable the fax modem

In the Fax modem main view, press **Activate** or **Disable**.

12. Accessories guide

Original Nokia accessories ensure the best possible operation of your Nokia mobile phone in various conditions. The Nokia 9290 Communicator accessories have been designed for different users and communication needs.

Note: Use only batteries, chargers, and accessories approved by the communicator manufacturer for use with this particular communicator model. The use of any other types will invalidate any approval or warranty applying to the communicator, and may be dangerous.

Tip: Original Nokia accessories cover a wide range of user environments: advanced data transmission equipment, practical headsets, chargers and holders for mobile as well as office use.

Power management

High power battery BLL-3

Figure 106

The High Power Battery BLL-3 is a slim, powerful and durable 1300 mAh Li-Ion battery. See Figure 106. This battery provides you with a talk-time of up to 10 hours, stand-by time of 230 hours with the phone on, and stand-by time of 400 hours with the phone off, using PDA features only.

The combined weight of the Nokia 9290 Communicator with battery is 244 g, (0.53 lb.).

Travel Charger ACP-12U

Figure 107

Tip: This charger is especially suitable for active travellers.

The Travel Charger ACP-12U is a lightweight and durable charger which functions over most main voltages. The communicator can be operated normally during charging. Using this charger, the charging time of the communicator is approximately 180 minutes (depending on the amount of charge already in the battery). See Figure 107.

Advanced desktop stand DCH-10

Tip: To charge batteries with this stand you need the Performance Travel Charger ACP-12U. To connect to a PC, you need the RS-232 Adapter Cable DLR-2L. You can also connect to a PC via infrared.

Figure 108

The Advanced Desktop Stand DCH-10 provides a convenient way to:

- charge the battery when it is attached to the communicator.
- connect to a compatible PC for data transfer.

It has an infrared port on the left side of the stand; see Figure 108. The stand also has a slot for charging batteries separately from the communicator; this is especially convenient for charging spare batteries.

Charge the communicator battery with the desktop stand

1 Plug the Performance Travel Charger ACP-12U into the stand.

2 Place the communicator, with the battery attached, in the desktop stand connector end first.

3 Plug the charger into a mains outlet.

Charge a spare battery with the desktop stand

1 Plug the Performance Travel Charger into the stand.

2 Insert the spare battery in the second slot, the golden contacts first. First press the battery downwards, then push it slightly backwards, until it clicks into place.

3 Plug the charger into a mains outlet. Check that the light on the left of the stand is on. The red light indicates that charging is in progress. When the battery is charged you will see a steady green light.

4 To remove the battery, slide it forwards then lift it up and out of the stand.

Note: If the communicator is also charging in the desk stand, the charging of the spare battery will cease until the battery attached to the communicator is fully charged.

Connect to a PC

To connect to a compatible PC, either use the RS-232 Adapter Cable DLR-2L, as follows:

1 Plug the adapter cable into the connector at the back of the stand.

2 Connect the other end of the cable to the PC.

3 Place the communicator in the stand, connector end first.

4 On the PC, start either the PC Suite for Nokia 9290 Communicator program, or the Fax/Modem application.

Alternatively, use an infrared connection, as follows:

1 Check that infrared is activated in the communicator and on the PC.

2 Place the communicator in the stand, connector end first.

3 Place the infrared port on the stand in line with the infrared port on the PC. The distance between the two ports should be a maximum of 30 cm (11.81 inches).

4 On the PC, start either the PC Suite for Nokia 9290 Communicator program, or the Fax/Modem application.

You can also synchronize data between your communicator and an organizer program on a compatible PC with a single press of the button. For more information, see the PC Suite Guide in the Using Nokia 9290 Communicator section of the sales package CD-ROM.

Vehicle accessories

Advanced HF Car Kit CARK-109

Figure 109

The Advanced HF Car Kit CARK-109 offers a convenient handsfree option in a car. The car kit provides charging for your communicator. The car kit must be installed by qualified personnel.

Tip: Battery charging times are the same as those for the Travel Charger ACP-12U.

Figure 110

The kit consists of the Advanced Active Car Holder CRM-1 (shown in Figure 110), Advanced HF Unit HFU-2, Microphone HFM-8 and External HF Speaker HFS-12. In addition you can use an optional Handset HSU-1 for privacy. An external antenna (not included) is recommended for the vehicle. It connects to the CRM-1.

Place the communicator in the holder

1 Close the cover of the communicator and turn the antenna to a closed position.

2 Insert the communicator in the car kit holder connector end first.

3 To avoid damaging the connectors, press the communicator down gently until it is securely held by the locking mechanism.

Make a call with the car kit

1 Key in the desired number with the keypad or use the search function to look for a name and number.

2 Press . For a private call, lift the handset if installed.

Answer a call

1 Press , or, if the handset is installed, lift the handset.

2 If you set the Automatic answer feature on in the Car profile, the communicator will automatically answer incoming calls.

Switch from handset operation to handsfree operation

Press the Options selection key once and replace the handset in 5 seconds. If you do not press Options before replacing the handset, the call will end.

End a call

Press , or, if the handset is installed, replace the handset.

Ignition sense

The ignition sense feature allows the communicator to be automatically switched on or off whenever the communicator is in the charging holder and the vehicle is started or switched off. This prevents the communicator from draining the car battery, if accidentally left on for a long period of time.

If installed, the ignition sense is always available. If you do not wish to enable the ignition sense, ask your dealer to leave it uninstalled.

When the ignition is turned off, the message 'Phone will power off, if not used' is displayed. The communicator will be switched off after 15 seconds unless you press any key or take the communicator from the holder during this time.

Car mute

This feature mutes the car radio during a phone call, if supported by the car radio. Ask your dealer to enable the car radio feature during installation.

Antenna motor control

If installed, this feature will activate the electrical motor of the mobile antenna.

Mobile Charger LCH-9

Figure 111

The Mobile Charger LCH-9 provides an easy and convenient way to charge the communicator battery in a vehicle. It is suitable for most vehicles' cigarette lighter sockets. Plug the lead from the mobile charger into the bottom connector of the communicator. See Figure 111.

Wearables

Headset HDC-8L

Figure 112

The Headset HDC-8 offers private headset audio operation. With the remote control button, which is located in the microphone part of the headset, you can answer and end a call. The headset connects directly to the connector at the bottom of the communicator. See Figure 112.

Carry Cases

Carry Case CSL-25

Figure 113

There are two different leather carrying cases designed especially for the Nokia 9290 Communicator shown in Figure 113 and Figure 114. The case shown in Figure 114 (CSL-26) has a convenient shoulder strap. Both are available from Nokia dealers.

Carry Case CSL-26

Figure 114

Mobile office

Memory card

The 16 MB postage stamp sized memory card provides removable storage for the communicator. The memory card increases the available memory for data and software applications. For example you could load new applications to the communicator and save files such as images, wav sounds, faxes and documents. You could also use a memory card for different applications or address books.

For additional memory, the 64 MB memory card (DTS-64) can be purchased on the www.Communicatorworld.net web page in accessories for the 9290 Communicator.

RS-232 Adapter cable DLR-2L

Figure 115

This versatile adapter cable provides convenient computer connectivity for data transfer with your Nokia 9290 Communicator. It connects to the RS-232 serial port of a compatible computer. It can also be used with the Advanced Desktop Stand DCH-10. See Figure 115.

13. Troubleshooting

You can visit Forum Nokia at www.forum.nokia.com for information and support material related to the communicator.

WARNING: You must backup all your data on the communicator to a memory card BEFORE sending it in for repairs. For more information see 'Back up and restore data to and from a memory card' on page 225. Do not send your memory card in for repair unless the memory card is defective. All hardware is sent back to you clean. Nokia is not responsible for any data that is on the machine or the memory card when it is sent in. Please call Customer Care before sending in your communicator.

1 Phone or communicator interface does not start; both displays remain blank

Make sure that the battery is properly installed and charged.

Make sure that the contacts on the battery and the desktop stand are clean.

The battery charge may be too low for operation. Check the display and listen for the low battery warning tones. Charge the battery as described on page 80. If the NOT CHARGING message is displayed, the charging is suspended. Temperature extremes will affect the ability of your battery to charge: allow it to cool down or warm up first. Wait for a while, disconnect the charger, connect it again and retry. If charging still fails, contact your local Nokia dealer.

2 Communicator interface does not start; cover phone display is flashing

The communicator memory is corrupted. Contact your local Nokia dealer.

3 The battery is attached, but the phone does not work

Try to switch on the phone by pressing the key for several seconds.

Check that the flight mode is not active. For more information see 'Flight profile' on page 113.

Restart the communicator by removing the battery, waiting thirty seconds, and replacing it again.

Try charging the communicator. If you see the battery level indicator on the phone but the phone does not work, contact your local Nokia dealer.

Check the signal strength indicator: you might be outside the system service area.

Make sure that the telephone service is activated for your SIM card.

Check if there is an error message on the display after switching on. If so, contact your local dealer.

Check that the SIM card is correctly installed, see the Getting Started Guide.

4 Communicator interface is not activated or applications stop responding

Close the cover and open it again. If this does not help, close the cover and remove the battery. Replace the battery and open the cover again. Wait while the communicator performs a self-test and starts.

Try charging the communicator.

If the device does not respond even after several restarts (disconnect the charger, take battery out, wait for 30 seconds, and replace the battery), remove all temporary files as follows:

1 Disconnect the charger and remove the battery to restart the communicator.

2 Insert the battery and open the cover.

3 When you see the Nokia 9290 Communicator Welcome screen, immediately press and hold down the Ctrl+Shift+I keys. The I key should be pressed last.

4 Temporary files are deleted. This empties the cache, removes cookies, resets plugin registrations and resets the settings you have made in some of the applications including all Internet and profile settings, Desk shortcuts and display settings. All other applications and files stay intact.

If the procedures described above do not help, as a last resort before contacting your local dealer you can try formatting the internal memory of the communicator. **Note that formatting the memory removes all items except the standard applications that have been factory pre-installed in ROM memory!**

If you have made a full backup of the contents of your communicator with PC Suite, you can use PC Suite to format the memory before restoring the backed-up files to your communicator. For more information, see the PC Suite Guide on the sales package CD-ROM.

If you have made a backup to a memory card, see 'Back up and restore data to and from a memory card' on page 225.

When you format the internal memory, all the settings, documents and other data in the internal memory that you have created or modified will be permanently destroyed. To format the internal memory, proceed as follows:

Tip: If you have to give away your Communicator, it is a good idea to format the device and restore the factory-installed software from the CD-ROM. This way the next user will be able to start with a fresh device.

1. Disconnect the charger and remove the battery to restart the communicator.
2. Insert the battery and open the cover.
3. When you see the Nokia 9290 Communicator Welcome screen, immediately press and hold down the Ctrl+Shift+F keys. The F key should be pressed last.
4. Formatting starts. It takes at least two minutes to complete.
5. With Windows Explorer, locate the *All_Nokia_9290_data.sis* installation package in the *Preinstalled in device* folder of the sales package CD-ROM and install it.

5 Cannot make or receive calls

Check to see if you have 'Flight' profile turned on. When this profile is active you cannot make or receive calls.

Make sure that the phone is not off. Close the cover and switch on the phone.

If you get the message INVALID SIM CARD, your SIM card cannot be used in the communicator. Contact you dealer or system service provider.

Check the status of your call restrictions and forwards, see 'System services settings' on page 105.

The phone may be busy: data or fax is being sent or received, or the communicator is being used as a fax modem. Wait for the data/fax transmission to end, or drop the call by pressing the key on the phone keypad.

6 Call quality is poor

Your location may not allow better call quality. This problem may occur especially in a moving car or train. Move to a location where the radio signal reception is better. See 'GSM data transmission' on page 43.

Reception is usually better above ground level, outdoors and while stationary. Sometimes even moving the communicator slightly will improve reception. You can also try using the communicator in the handsfree mode, see page 93. Remember to turn the antenna to an upright position.

7 Cannot forward or restrict voice, fax or data calls

You may have not subscribed to the service in question, or it is not supported by the system, or the message center number and the number to which you want to forward your calls may be missing or incorrect.

Fax forwards and restrictions are defined in *Tools* > *Account settings...* in the **Messaging** application. Data restriction is set in the Data call restrictions in Control panel. Data calls cannot be forwarded.

8 Cannot select a contact

If you cannot select a contact in the Telephone, Fax, SMS or Mail directory, the contact card does not have a telephone number, fax number, wireless phone number or an e-mail address. Add the missing information to the contact card in the Contacts application.

9 Cannot send or receive faxes, short messages or mail

Make sure that you have subscribed to these system services.

The phone may be off, or the communicator is low on memory.

The number format you use may be invalid, or the called number has not answered within 10 tries, or you are calling to a wrong phone number.

The phone may be busy: data or fax is being sent or received, the communicator is being used as a fax modem. Wait for the data/fax transmission to end, or drop the call by pressing the key on the phone keypad.

Fax/data restrictions or fax forwards may be active. You can define the Fax restrictions/forwards in *Tools* > *Account settings...* in **Messaging**.

Fax reception: Your SIM card may not have a fax number.

Mail reception: You have not subscribed to a remote mailbox service, or the mail service you are using uses another mail protocol than what you have selected. (Check with your Internet Service Provider whether you should be using POP3 or IMAP4.) If you are using secure connections, your remote mailbox service also has to support secure connections. There may also be a transient problem with

the remote mailbox service, or the Internet servers between the communicator and the remote mailbox. Try again after a couple of minutes, and then contact your Internet Service Provider.

Mail sending - You have not subscribed to a remote mailbox service, or the mail server delivering your mail does not comply with the SMTP protocol. If you are using secure connections, your remote mailbox service also has to support secure connections. There may also be a transient problem with the remote mailbox service, or the Internet servers between the communicator and the remote mailbox. Try again after a couple of minutes, and then contact your Internet Service Provider. If you are using the Upon request sending option, mail must be sent in the Document outbox, see 'Outbox' on page 179.

If you receive service provider error messages when connecting to your remote mailbox, contact your remote mailbox service provider. Your remote mailbox may contain corrupted mail messages or the mail server settings may be incorrect.

If you have problems sending mail with attachments, select **Cancel sending** and try again. If this does not help, try the key combination Shift-Tab-right arrow. Some mail attachments can take up a significant amount of memory and therefore freeing some memory by deleting something from your communicator memory might also help.

Short message sending - You have not subscribed to the Short Message Service or the message center number is missing or incorrect. Contact your service provider.

The reason for failure may also depend on the system: the system does not support SMS, fax, or data/mail; the system is out of order or busy; the signal strength is not adequate for sending.

10 Phone display shows "Message too long" when I try to open a received short message

The received message is over 1377 characters long. Use the Messaging application to read it.

11 Cannot establish an Internet connection

If you are trying to connect to the Internet (in order to use WWW or to receive or send mail), but the operation does not succeed, you can use the following checklist to find out where the problem might be located:

1. Is the data call active when you are trying to connect? Look at the data call indicator on the phone side. If the data call is dropped after a few seconds after starting to connect, check the phone number in the Internet Access settings. See page 150 for details.

   If the phone number is correct, the reason may be in poor system conditions, or a congested GSM network. Also check the Data call settings in the Internet Access settings (connection type, data call type, and maximum connection speed). See page 150 for details.

   Contact your system service provider if you have problems with data call establishment, and your Internet Service Provider to find out the correct remote modem type. If you are roaming outside your home system, you might want to try the basic GSM data call settings described in a tip on page 154.

2. If the data call is active, but you cannot receive or send mail, try to use the WWW browser to connect to your Internet Service Provider's WWW pages. If that works, the problem is most likely in the mail settings or the remote mailbox service. For more information, see Mail settings on page 188.

3 If the data call is active, but you cannot download WWW pages with the WWW browser, make note of the most recent status indication displayed to you in the title bar of the WWW browser.

- If the status indication reads *Waiting for reply from host* or *Looking up host address*, it is likely that the WWW address (URL) has been mistyped, or there is a problem with proxy server settings in the Internet Access Point or the proxy server itself, or there is a transient problem with the WWW server or Internet connections between the WWW server and your Internet Service Provider. Check the proxy server settings explained on page 153. Disconnect the call, wait for a couple of minutes, and retry the connection. If the connection still does not succeed, contact your Internet Service Provider.
- If the status indication reads *Logging into system* or *Connected*, the problem is most likely in your Internet Access Point settings (See page 150 for details) or your Internet Service Provider's dial-up system, or you might need a script in order to connect to your Internet Service Provider. Disconnect the data call, wait for a couple of minutes, and retry the connection. If the connection still does not succeed, contact your Internet Service Provider.

4 If your data call is unexpectedly dropped, this may be a case of poor system conditions, congestion in the phone system, or a too low inactivity period setting.

If you are unable to connect to the Internet after repeated attempts, and have successfully used your Internet connection previously, or get error messages when starting the WWW browser, remove and replace the battery and try again.

12 Infrared problems

The communicator may be connected to a PC, laptop, printer, digital camera, wireless phone or another communicator via the infrared connection.

If you are using the PC Suite for Nokia 9290 Communicator program on your PC, or if you want to receive data from another communicator or a digital camera, you must activate the Infrared connection on your communicator before the connection is made. See PC Suite Guide in the sales package CD-ROM and 'Activate the infrared connection' on page 90 of this guide.

The PC to which you want to establish the connection must have an IrDA compatible infrared port; installed and activated IrDA drivers; and Microsoft Windows 95/98/98SE/Me. For more information on IrDA drivers and their use in Windows, contact Microsoft.

If you have an IBM Thinkpad laptop with Windows 98 SE installed, you may encounter problems with infrared connections. If problems occur, proceed as follows:

1. Click the Windows **Start** button and select *Settings* > *Control Panel*.
2. In the Windows 98 Control Panel, open **System**.
3. In the *System properties* dialog, select the *Device Manager* tab.
4. Under *System Adapters*, select *IBM Thinkpad Fast Infrared Port* and click the **Properties** button. *IBM Thinkpad Fast Infrared Port Properties* dialog opens.
5. Click the *Driver* tab and then click the **Update Driver...** button. *Update Device Driver Wizard* starts.
6. Click **Next**.

7 Select the *Install one of the other drivers* option and click the **View List...** button.

8 Infrared PnP Serial Port has been found. Click **OK**.

9 Click **Next**.

10 Infrared PnP Serial Port is ready to be installed. Click **Next**.

11 The new driver has been installed. Click **Finish**.

12 The computer must be restarted before the new driver can be taken to use. Click **Yes** to restart the computer.

13 Printing problems

If you are using the infrared connection, the infrared port of the printer must be compatible to the IrDA standard. See 'Print' on page 86.

If you fail to establish an infrared connection, transfer the file to a PC and use the PC to print the document. Alternatively, you can fax the document to the nearest fax machine. See 'Write and send a new fax' on page 184.

14 PC connectivity problems

Make sure that PC Suite for Nokia 9290 Communicator is installed and running on your PC. See the PC Suite Guide for more information.

If you use a cable connection, check that the cable is properly attached at both ends.

If you use an infrared connection, check that the IR ports are facing each other and the route between the ports is unobstructed.

Check that you are using the correct serial port (COM) on your PC.

For all other PC Suite problems, see the PC Suite Guide and the PC Suite online help 'Troubleshooting' section.

15 Fax modem problems

When you use the communicator as a fax modem, make sure that the communicator and the PC use the same baud rate. If you use the infrared connection, the baud rate is set automatically. If you use the cable connection, set the baud rate in the Fax modem settings. For the PC, the baud rate is set in the connectivity software of the PC.

If you use the cable connection, fully compatible operation with all PC fax and terminal software cannot be guaranteed. Consult your dealer. If you have problems with your PC fax software, use the infrared connection.

If you have problems establishing a data connection with the remote modem, try fixing the data transmission rate by using an AT command. Common AT commands based on the GSM 07.07 standard and supported by the Nokia 9290 Communicator and are listed in the CD-ROM supplied with your communicator. You can find this file in the documentation section of the CD-ROM. For information on how to use the AT commands and fax modem drivers, consult the documentation of the telecommunication or fax application that you use on your PC.

16 Access code problems

The default lock code for Nokia 9290 Communicator is **12345**. If you forget or lose the lock code contact your communicator dealer.

If you forget or lose a PIN or PUK code, or if you have not received such a code, contact your system service provider.

For information about Internet passwords, contact your Internet service provider.

17 Low on memory

Your communicator can run out of memory just like a PC. There may be several reasons for that:

- You have too many applications running. Press the Menu key and check the leftmost menu for tasklist of open applications. Choose the application that does not have to be open and close it.
- You have received a lot of mail or you have saved large images or other items that use a lot of memory. To free up communicator memory, remove unnecessary data, move large items to a memory card or transfer them to your PC, if possible. See the PC Suite Guide for more details.
- You have tried to download a large WWW page. See see item 19 on this troubleshooting list.

You can check the memory usage in the Memory application of Control panel.

See 'Memory' on page 239.

18 Cannot connect to the Internet when roaming

You are able to connect to the Internet when in your home country. You are now roaming and your Internet connection does not work. Try using the settings of a basic GSM data connection. Also check that the phone number of your Internet Access Point is in international format. See 'Data call page' on page 154.

Note: The calls described here as international may in some cases be made between regions of the same nation.

19 'Memory' error note seen when downloading very large WWW pages

Some WWW pages are extremely large because they contain many large images or tables. These types of pages consume memory in the communicator very quickly. If, when downloading WWW pages, you see an error note about memory, the first action is to close any other applications that you may have opened after starting the WWW browser. To do that, press the Menu key and check the leftmost menu for tasklist of open applications. Select and close each item.

If you still experience problems, turn off the setting which allows loading images automatically. One last action is to exit the WWW browser application, start it again, and try to download the page once more without images.

Note: Removing data files or installing applications does not have effect on the memory available to the WWW browser.

14. Reference information

Important safety information

Traffic safety

Do not use a communicator while driving a vehicle. If using a communicator, park the vehicle first. Always secure the communicator in its holder; do not place the communicator on the passenger seat or where it can break loose in a collision or sudden stop.

The use of an alert device to operate a vehicle's lights or horn on public roads is not permitted.

Remember road safety always comes first!

Operating environment

Remember to follow any special regulations in force in any area and always switch off the phone of your communicator whenever it is forbidden to use it, or when it may cause interference or danger.

When connecting the communicator or any accessory to another device, read its user guide for detailed safety instructions. Do not connect incompatible products.

As with other mobile radio transmitting equipment, users are advised that for the satisfactory operation of the equipment and for the safety of personnel, it is recommended that the equipment should only be used in the normal operating position (held to your ear with the antenna pointing over your shoulder).

Do not point the infrared beam at anyone's eye or allow it to interfere with other infrared devices.

To maintain compliance with radio frequency exposure guidelines, always use Nokia approved accessories. Place the communicator in an approved carrying case or belt clip when carrying the communicator while the phone is on.

Electronic Devices

Most modern electronic equipment is shielded from radio frequency (RF) signals. However, certain electronic equipment may not be shielded against the RF signals from your communicator.

Pacemakers: Pacemaker manufacturers recommend that a minimum separation of 20 cm (6 inches) be maintained between a hand-held wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and recommendations of Wireless Technology Research. Persons with pacemakers:

Should always keep the communicator more than 20 cm (6 inches) from their pacemaker when the phone is switched on;

Should not carry the communicator in a breast pocket;

Should use the ear opposite the pacemaker to minimize the potential for interference.

If you have any reason to suspect that interference is taking place, switch off the phone of your communicator immediately.

Hearing aids: Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult your service provider.

Other medical devices: Operation of any radio transmitting equipment, including communicators, may interfere with the functionality of inadequately protected medical devices. Consult a physician or the manufacturer of the medical device to determine if they are adequately shielded from external RF energy or if you have any questions. Switch off the phone of your communicator in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

Vehicles: RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles (for example electronic fuel injection systems, electronic anti-skid (anti-lock) braking systems, electronic speed control systems, air bag systems). Check with the manufacturer or its representative regarding your vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.

Posted notices: Switch off the phone of your communicator in any facility where posted notices so require.

Potentially Explosive Atmospheres

Switch off the phone of your communicator when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Users are advised to switch off the phone when at a refueling point (service station). Users are reminded of the need to observe restrictions on the use of radio equipment in fuel depots (fuel storage and distribution areas), chemical plants or where blasting operations are in progress.

Areas with a potentially explosive atmosphere are often but not always clearly marked. They include below deck on boats; chemical transfer or storage facilities; vehicles using liquified petroleum gas (such as propane or butane); areas where the air contains chemicals or particles, such as grain, dust or metal powders; and any other area where you would normally be advised to turn off your vehicle engine.

Vehicles

Only qualified personnel should service the communicator, or install the communicator in a vehicle. Faulty installation or service may be dangerous and may invalidate any warranty which may apply to the unit.

Check regularly that all wireless phone equipment in your vehicle is mounted and operating properly.

Do not store or carry flammable liquids, gases or explosive materials in the same compartment as the communicator, its parts or accessories.

For vehicles equipped with an air bag, remember that an air bag inflates with great force. Do not place objects, including both installed or portable wireless equipment in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious injury could result.

Switch off the phone of your communicator before boarding an aircraft. The use of wireless telephones in an aircraft may be dangerous to the operation of the aircraft, disrupt the wireless telephone system and may be illegal.

Failure to observe these instructions may lead to suspension or denial of telephone services to the offender, or legal action or both.

Emergency Calls

IMPORTANT!

The Nokia 9290 Communicator, like any wireless phone, operates using radio signals, wireless and landline systems as well as user-programed functions which cannot guarantee connection in all conditions. Therefore you should never rely solely upon any wireless phone for essential communications (for example, medical emergencies).

Remember, to make or receive any calls the phone must be switched on and in a service area with adequate signal strength. Emergency calls may not be possible on all wireless phone systems or when certain system services and/or phone features are in use. Check with local service providers.

To make an emergency call:

1 If the device cover is open, close it.

2 If the phone is not on, switch it on by pressing the key. Some systems may require that a valid SIM card is properly inserted in the communicator.

3 Press and hold the key for several seconds to ready the phone for calls, and to end possible active data or fax calls.

4 Key in the for your present location (for example, 911 or other official emergency number). Emergency numbers vary by location.

5 Press the key.

If certain features are in use (call restrictions, fixed dialing, system lock, keypad lock, etc.), you may first need to turn those features off before you can make an emergency call. Consult this document and your local cellular service provider.

When making an emergency call, remember to give all the necessary information as accurately as possible. Remember that your communicator may be the only means of communication at the scene of an accident - do not cut off the call until given permission to do so.

Important power supply information

WARNING: This apparatus is intended for use when supplied with power from a Lithium-ion battery and chargers ACP-12U and LCH-9. Other usage will invalidate any approval given to this apparatus and may be dangerous. Use only batteries, chargers and accessories approved by the communicator manufacturer for use with this particular communicator model. The use of any other types will invalidate any approval or warranty applying to the communicator, and may be dangerous. For availability of approved accessories, please check with your dealer. When you disconnect the power cord of any accessory, grasp and pull the plug, not the cord.

Certification Information (SAR) for U.S.

THIS MODEL PHONE MEETS THE GOVERNMENT'S REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg.* Tests for SAR are conducted using standard operating positions accepted by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations (for example, at the ear and worn on the body) as required by the FCC for each model. The highest SAR value for this model phone as reported to the FCC when tested for

use at the ear is 0.43 W/kg and when worn on the body, as described in this user guide, is 0.66 W/kg. (Body-worn measurements differ among phone models, depending upon available accessories and FCC requirements).

While there may be differences between the SAR levels of various phones and at various positions, they all meet the government requirement.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of **http://www.fcc.gov/oet/fccid** after searching on FCC ID: PDNRAB-3N.

For body worn operation, this phone has been tested and meets the FCC RF exposure guidelines when used with the Nokia accessories supplied or designated for this product. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

*In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kilogram (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements. SAR values may vary depending on national reporting requirements and the network band. For SAR information in other regions please look under product information at **www.nokia.com**.

Certification Information (SAR) for Canada

THIS MODEL PHONE MEETS GOVERNMENT REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

Your mobile phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the limits for exposure to radio frequency (RF) energy set by Industry Canada. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. the guidelines include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the Industry Canada is 1.6 W/kg* Tests for SAR are conducted using standard operating positions with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a base station, the lower the power output of the phone.

Before a phone model is available for sale to the public, compliance with the Canadian Standard must be shown. The highest SAR value for this model phone when tested for use at the ear is 0.43 W/Kg. While there may be differences between the SAR levels of various phones and at various positions, they all meet the government requirement for RF exposure.

* The SAR limit for mobile phones used by the public is 1.6 watts/kilogram (W/kg) averaged over one gram of body tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements. SAR values may vary depending on national reporting requirements and the network band. For SAR information in other regions please look under product information at **www.nokia.com**.

Care and maintenance

Your Nokia 9290 Communicator is a product of superior design and craftsmanship and should be treated with care. The suggestions below will help you to fulfill any warranty obligations and to enjoy this product for many years. When using your communicator, battery, charger OR any accessory:

Keep it and all its parts and accessories out of small children's reach.

Keep it dry. Precipitation, humidity and liquids contain minerals that will corrode electronic circuits.

Do not use or store it in dusty, dirty areas. Its moving parts can be damaged.

Do not store it in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.

Do not store it in cold areas. When the communicator warms up (to its normal temperature), moisture can form inside the communicator, which may damage electronic circuit boards.

Do not attempt to open it. Non-expert handling of the device may damage it.

Do not drop, knock or shake it. Rough handling can break internal circuit boards. Dropping the product may break the color display, which is fragile.

Do not use harsh chemicals, cleaning solvents, or strong detergents to clean it. Wipe it with a soft cloth slightly dampened in a mild soap-and-water solution.

Do not paint it. Paint can clog the device's moving parts and prevent proper operation.

Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications or attachments could damage the communicator and may violate regulations governing radio devices.

If the communicator, battery, charger or any accessory is not working properly, take it to your nearest qualified service facility. The personnel there will assist you and, if necessary, arrange for service.

Accessory safety

A few practical rules for accessory operation:

- Keep all accessories out of the reach of small children.
- When you disconnect the power cord of any accessory, grasp and pull the plug, not the cord.
- Check regularly that any vehicle-installed accessories are mounted and are operating properly.
- Installation of any complex car accessories must be made by qualified personnel only.
- Use only batteries, chargers, and accessories that have been approved by the phone manufacturer. The use of any other types could invalidate any approval or warranty applying to the phone and could be dangerous.

Battery safety

Charging and Discharging

Your phone is powered by a rechargeable battery.

Note that a new battery's full performance is achieved only after two or three complete charge and discharge cycles!

The battery can be charged and discharged hundreds of times but it will eventually wear out. When the operating time (talk-time and standby time) is noticeably shorter than normal, it is time to buy a new battery.

Use only batteries approved by the phone manufacturer and recharge your battery only with the chargers approved by the manufacturer. Unplug the charger when not in use. Do not leave the battery connected to a charger for longer than a week, since overcharging may shorten its lifetime. If left unused, a fully charged battery will discharge itself over time.

Temperature extremes can affect the ability of your battery to charge.

Leaving the battery in hot or cold places, such as in a closed car in summer or winter conditions, will reduce the capacity and lifetime of the battery. Always try to keep the battery between 15°C and 25°C (59°F and 77°F). A phone with a hot or cold battery may temporarily not work, even when the battery is fully charged. Batteries' performance is particularly limited in temperatures well below freezing.

Do not dispose of batteries in a fire!

Dispose of batteries according to local regulations (for example, recycling). Do not dispose as household waste.

Nokia One Year Limited Warranty for U.S.

Note: This warranty is applicable to U.S. residents ONLY.

Nokia Inc. ("Nokia") warrants that this cellular phone ("Product") is free from defects in material and workmanship that result in Product failure during normal usage, according to the following terms and conditions:

1 The limited warranty for the Product extends for ONE (1) year beginning on the date of the purchase of the Product. This one year period is extended by each whole day that the Product is out of your possession for repair under this warranty.

2 The limited warranty extends only to the original purchaser ("Consumer") of the Product and is not assignable or transferable to any subsequent purchaser/end- user.

3 The limited warranty extends only to Consumers who purchase the Product in the United States of America.

4 During the limited warranty period, Nokia will repair, or replace, at Nokia's sole option, any defective parts, or any parts that will not properly operate for their intended use with new or refurbished replacement items if such repair or replacement is needed because of product malfunction or failure during normal usage. No charge will be made to the Consumer for any such parts. Nokia will also pay for the labor charges incurred by Nokia in repairing or replacing the defective parts. The limited warranty does not cover defects in appearance, cosmetic, decorative or structural items, including framing, and any non-operative parts. Nokia's limit of liability under the limited warranty shall be the actual cash value of the Product at the time the Consumer returns the Product for repair, determined by the

price paid by the Consumer for the Product less a reasonable amount for usage. Nokia shall not be liable for any other losses or damages. These remedies are the Consumer's exclusive remedies for breach of warranty.

5 Upon request from Nokia, the Consumer must prove the date of the original purchase of the Product by a dated bill of sale or dated itemized receipt.

6 The Consumer shall bear the cost of shipping the Product to Nokia in Melbourne, Florida. Nokia shall bear the cost of shipping the Product back to the Consumer after the completion of service under this limited warranty.

7 The Consumer shall have no coverage or benefits under this limited warranty if any of the following conditions are applicable:

a) The Product has been subjected to abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized connections, unauthorized repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts which are not the fault of Nokia, including damage caused by shipping.

b) The Product has been damaged from external causes such as collision with an object, or from fire, flooding, sand, dirt, windstorm, lightning, earthquake or damage from exposure to weather conditions, an Act of God, or battery leakage, theft, blown fuse, or improper use of any electrical source, damage caused by computer or internet viruses, bugs, worms, Trojan Horses, cancelbots or damage caused by the connection to other products not recommended for interconnection by Nokia.

c) Nokia was not advised in writing by the Consumer of the alleged defect or malfunction of the Product within fourteen (14) days after the expiration of the applicable limited warranty period.

d) The Product serial number plate or the accessory data code has been removed, defaced or altered.

e) The defect or damage was caused by the defective function of the cellular system or by inadequate signal reception by the external antenna, or viruses or other software problems introduced into the Product.

8 Nokia does not warrant uninterrupted or error-free operation of the Product. If a problem develops during the limited warranty period, the Consumer shall take the following step-by-step procedure:

a) The Consumer shall return the Product to the place of purchase for repair or replacement processing.

b) If "a" is not convenient because of distance (more than 50 miles) or for other good cause, the Consumer shall ship the Product prepaid and insured to:
Nokia Inc., Attn: Repair Department
795 West Nasa Blvd.
Melbourne, FL 32901

c) The Consumer shall include a return address, daytime phone number and/or fax number, complete description of the problem, proof of purchase and service agreement (if applicable). Expenses related to removing the Product from an installation are not covered under this limited warranty.

d) The Consumer will be billed for any parts or labor charges not covered by this limited warranty. The Consumer will be responsible for any expenses related to reinstallation of the Product.

e) Nokia will repair the Product under the limited warranty within 30 days after receipt of the Product. If Nokia cannot perform repairs covered under this limited warranty within 30 days, or after a reasonable number of attempts to repair the same defect, Nokia at its option, will provide a replacement Product or refund the purchase price of the Product less a reasonable amount for usage. In some states the Consumer may have the right to a loaner if the repair of the Product takes more than ten (10) days. Please contact the Customer Service Center at Nokia at the telephone number listed at the end of this warranty if you need a loaner and the repair of the Product has taken or is estimated to take more than ten (10) days.

f) If the Product is returned during the limited warranty period, but the problem with the Product is not covered under the terms and conditions of this limited warranty, the Consumer will be notified and given an estimate of the charges the Consumer must pay to have the Product repaired, with all shipping charges billed to the Consumer. If the estimate is refused, the Product will be returned freight collect. If the Product is returned after the expiration of the limited warranty period, Nokia's normal service policies shall apply and the Consumer will be responsible for all shipping charges.

9 You (the consumer) understand that the product may consist of refurbished equipment that contains used components, some of which have been reprocessed. The used components comply with the product performance and reliability specifications.

10 ANY IMPLIED WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR USE, SHALL BE LIMITED TO THE DURATION OF THE FOREGOING LIMITED WRITTEN WARRANTY. OTHERWISE, THE FOREGOING LIMITED WARRANTY IS THE CONSUMER'S SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. NOKIA SHALL NOT BE LIABLE FOR SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOSS OF ANTICIPATED BENEFITS OR PROFITS, LOSS OF SAVINGS OR REVENUE, LOSS OF DATA, PUNITIVE DAMAGES, LOSS OF USE OF THE PRODUCT OR ANY ASSOCIATED EQUIPMENT, COST OF CAPITAL, COST OF ANY SUBSTITUTE EQUIPMENT OR FACILITIES, DOWNTIME, THE CLAIMS OF ANY THIRD PARTIES, INCLUDING CUSTOMERS, AND INJURY TO PROPERTY, RESULTING FROM THE PURCHASE OR USE OF THE PRODUCT OR ARISING FROM BREACH OF THE WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT, OR ANY OTHER LEGAL OR EQUITABLE THEORY, EVEN IF NOKIA KNEW OF THE LIKELIHOOD OF SUCH DAMAGES. NOKIA SHALL NOT BE LIABLE FOR DELAY IN RENDERING SERVICE UNDER THE LIMITED WARRANTY, OR LOSS OF USE DURING THE PERIOD THAT THE PRODUCT IS BEING REPAIRED.

11 Some states do not allow limitation of how long an implied warranty lasts, so the one year warranty limitation may not apply to you (the Consumer). Some states do not allow the exclusion or limitation of incidental and consequential damages, so certain of the above limitations or exclusions may not apply to you (the Consumer). This limited warranty gives the Consumer specific legal rights and the Consumer may also have other rights which vary from state to state.

12 Nokia neither assumes nor authorizes any authorized service center or any other person or entity to assume for it any other obligation or liability beyond that which is expressly provided for in this limited warranty including the provider or seller of any extended warranty or service agreement.

13 This is the entire warranty between Nokia and the Consumer, and supersedes all prior and contemporaneous agreements or understandings, oral or written, relating to the Product, and no representation, promise or condition not contained herein shall modify these terms.

14 This limited warranty allocates the risk of failure of the Product between the Consumer and Nokia. The allocation is recognized by the Consumer and is reflected in the purchase price.

15 Any action or lawsuit for breach of warranty must be commenced within eighteen (18) months following purchase of the Product.

16 Questions concerning this limited warranty may be directed to:
Nokia Inc.
Attn: Customer Service
7725 Woodland Center Blvd., Ste. 150
Tampa, FL 33614
Telephone: 1-800-4MY-9290
Facsimile: (813) 287-6612
TTY/TDD Users Only: 1-800-24-NOKIA (1-800-246-6542)

17 The limited warranty period for Nokia supplied attachments and accessories is specifically defined within their own warranty cards and packaging.

Manufactured or sold under one or more of the following U.S. patents:

4868846	4969192	5101175	5230091	5241583	5331638	5335362	5351235	5384782	5400959
5416435	5442521	5444816	5446364	5479476	5526366	5557639	5581244	5625274	5664053
5699482	5701392	5706110	5729534	5729541	5754976	5760568	5802465	5805301	5827082
5835889	5839101	5862178	5870683	5884103	5887266	5889770	5896369	5898925	5907823
5914796	5915440	5917868	5920826	5930233	5946651	5956633	5960354	5960389	5963901
5966374	5966378	5970059	5987137	5991716	5991857	6005857	6011853	6014573	6026161
6028567	6038238	6043760	6047196	6049796	6069923	6081534	6084962	6094587	6111545
6112099	6115617	6119180	6122498	6138091	6144243	6144676	6154745	6163609	6164547
6170073	6188909	6195338	6199035	6201876	6212235	6219560	6240076	6240079	6249584
6262735	6266516	6295286	6308377	6321257	D392968	D403655	D406261	D416255	D409562
D408824	D416024	D392961	D392962	D393263	D447740	D448367	D448386	D447730	D441713
D440936									

Other patents pending

Nokia One Year Limited Warranty for Canada

Note: This warranty is applicable to Canadian residents ONLY.

Nokia warrants that the Nokia wireless phone and accessories are free from defects in material and workmanship. The warranty period for the Phone (Radio) units and all accessories (excluding carry cases) is twelve (12) months from the date of purchase OR fourteen (14) months from date of wholesale shipment from Nokia, OR fifteen (15) months from the date of manufacture by Nokia. The warranty period for the Carry cases is three (3) months from the date of Purchase or five (5) months from the date of wholesale shipment from Nokia.

During the warranty period, Nokia will, at its option, repair or replace the defective product free of charge. Replacement Product may be either new or remanufactured or refurbished.

However, if Nokia determines that the warranty conditions cannot be applied, the purchaser will be billed for the repair and shipping.

EXCEPTIONS

This warranty is subject to the following exceptions:

1. Mobile or fixed installation, which is not in accordance with the installation instructions, published by Nokia, will void the warranty. Damage caused by a repair or an attempt to repair by other than a service centre authorized by Nokia will void the warranty;

2. This warranty covers normal consumer use and does not cover defects or damage to any product which, in the sole opinion of Nokia, has been subject to: improper storage, exposure to moisture or dampness, exposure to fire, sand, dirt, windstorm, lightning, or earthquake: to theft, battery leakage, unauthorized modification, misuse,

neglect, abuse, misapplication, accident, alteration, improper installation, maladjustment of consumer controls, or abnormal operating conditions, or which has been attributable to acts of God:

3. Fuses are not covered by the warranty;

4. This warranty does not cover defects or damages caused by a product which is not approved by Nokia to be connected to its wireless phone;

5. This warranty does not cover defects or damages caused by improper or defective function of the carrier system or by inadequate signal reception by the antenna;

6. Removal and reinstallation costs are not covered by this warranty;

7. This warranty is applicable only to products bought through Nokia Products Ltd. in Ajax, Ontario, Canada, and sold either in Canada or Bermuda.

8. Removal, alteration, or defacing of the Serial Number Plate, or the accessory Date Code Labels will void the warranty.

In no event shall Nokia be liable for incidental, special, or consequential damages, direct or indirect, loss of unanticipated benefits or profits, loss of use of its wireless telephone, resulting from the use of its wireless phone, or its accessories, or arising from any breach of this warranty.

CLAIM PROCEDURE

In order to obtain warranty performance, return the defective unit to the Nokia Service Centre with transportation charges prepaid (Shipping of the repaired unit may be paid by Nokia, in which case Nokia shall have risk of loss or damage during this shipment).

The proof of date of purchase will be required before in-warranty service is rendered.

Maintenance and service may be obtained in any authorized service centre in Canada.

EXTENSION OF WARRANTY PERIOD

When a repair is made, an extra 90-day service warranty is given to the labour and parts of the repair concerned. If replacement of a faulty unit is applied, instead of repairing, this 90-day service warranty is applied to the replaced unit.

Besides this 90-day service warranty, the warranty repairs or replacements do not affect the original warranty conditions, which are determined by the date of purchase.

THE FOREGOING WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE.

Some provinces do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

FOR WARRANTY SERVICE LOCATION, CONTACT YOUR SERVICE PROVIDER/RETAILER/DEALER OR DIRECTLY TO:

NOKIA PRODUCTS LIMITED
601 Westney Road South
Ajax, Ontario L1S 4N7
Tel: 905-427-1373
1-888-226-6542

Website: www.nokia.ca

For products being returned to Nokia or its authorized service centres, the service provider/retailer/dealer shall prepay shipping charges, taxes, duties, insurance. Nokia shall have no risk for loss or damage during this shipment.

NOTE: As warranty is automatically registered, no further action is required by the consumer.

15. Glossary

AT Commands

Operations of a fax modem can be controlled by AT commands. These commands give the advanced user an opportunity to control all the features of the modem. A list of common AT commands based on the GSM 07.07 standard and supported by the Nokia 9290 Communicator is available on the CD-ROM included in the sales package of your communicator.

Cookies

Cookies are little pieces of information, given by the server to you, to store information about your visits to a Web site. When you accept cookies, the server is able to evaluate your use of the Web site; what you are interested in, what you want to read, and so on.

DNS

Domain Name Service. An Internet service that translates domain names like www.nokia.com into IP addresses like 192.100.124.195. Domain names are easier to remember but this translation is needed because the Internet is based on IP addresses.

Domain name and Host name

The terms "domain name" and "host name" are sometimes, slightly inaccurately, used as synonyms. In a full domain name, e.g. www.forum.nokia.com, the first part of the name is the name of the host, and the following parts are names of domains to which the host belongs. Each host name corresponds to a certain IP address. Host names are used because they are easier to remember than IP addresses.

Gateway IP address

The address of a WAP gateway. (see: WAP gateway).

Hotspot

A World Wide Web (WWW) page may contain hotspots, such as selection lists, text entry fields, and reset/submit buttons, which enable you to input information into the WWW.

HSCSD

High-Speed Circuit-Switched Data is circuit-switched wireless data transmission for mobile users at data rates up to 43.2 Kbps which is four times faster than the standard data rates of the Global System for Mobile (GSM) communication standard in 1999. HSCSD is comparable to the speed of many computer modems that communicate with today's fixed telephone systems.

HTML (Hypertext Mark-up Language)

A language used to define the appearance and content of WWW documents.

HTTP (Hypertext Transfer Protocol)

A document transfer protocol used in the WWW.

HTTPS

HTTP over a secure connection. See Secure Socket Layer (SSL)

Hyperlink

A link on a WWW page that leads to another World Wide Web page or site, or another place on the same page. Hyperlinks are usually underlined or shown in a different color from the surrounding text. Hyperlinks can also be pictures.

IAP (Internet Access Point)

The point where your communicator connects to the Internet by way of a data call. An Internet access point can be provided, for example, by a commercial Internet service provider (ISP) or by your own company.

Images, inline, external

Images within a retrieved WWW page are inline images. Larger images are often placed as external images and have to be viewed separately.

IMAP4 (Internet Mail Access Protocol, version 4)

A protocol used for accessing your Remote mailbox.

IETF (Internet Engineering Task Force)

IETF are responsible for most of the Internet standardization. Nokia 9290 Communicator is using many IETF specifications. In the callback settings, one of the settings is specified by IETF whereas the other methods are specified by Microsoft.

ISDN connections

ISDN connections are a way to establish a data call between the Communicator and your Internet Access Point. ISDN connections are digital from end to end and as such offer quicker set-up times and faster data rates than Analog connections. In order to use ISDN, both your Internet service provider and network provider have to support them.

Java

An object-oriented, general purpose programming language developed by Sun Microsystems and originally designed for handheld devices.

Java is language similar to C++, but simplified to eliminate language features that cause common programming errors.Compiled Java code can run on most computers because Java interpreters and runtime environments exist for most operating systems.

Lock code

The lock code is a five-digit code needed to lock and unlock the communicator. The default lock code for Nokia 9290 Communicator is **12345**. The lock code is also required when you change certain settings. Keep it secret and in a safe place, separate from the communicator.

MCN (Micro-Cellular Network) technology

Microcells are used for increasing the capacity of wireless networks in urban areas.

MIME (Multipurpose Internet Mail Extensions)

A standard Internet format which permits, for instance, multiple mail objects in a single message. The mail objects can be, for example, formatted multifont text messages and non-textual elements, such as images and audio fragments.

PIN (Personal Identity Number)

The PIN code protects your phone from unauthorized use. The PIN code is supplied with the SIM card. If the PIN code request is selected, the code is required each time the phone is switched on. The PIN code must be 4 to 8 digits long.

PIN2 Code

The PIN2 code is supplied with some SIM cards. The PIN2 code is required to access certain functions supported by the SIM card. The length of the PIN2 code is 4 to 8 digits.

Plug-in

A plug-in is add-on software that can be downloaded from the WWW. The communicator uses plug-ins to display a document that the WWW application itself cannot show

POP3 (Post Office Protocol, version 3)

A common mail protocol that can be used for accessing the Remote mailbox.

Point-to-point protocol (PPP)

A common networking software protocol which enables any computer with a modem and a phone line to connect directly to the Internet.

Protocol

A formal set of rules that govern how data is transferred between two devices.

Proxy

In some networks, the connection between the WWW and the site you want to connect to is blocked by a firewall. The firewall protects the network from unauthorized external access. A proxy is an intermediary program that enables access through the firewall. A proxy can also serve as a network cache to speed up the retrieving process.

PUK (PIN Unblocking Key) code

The PUK is an 8-digit code supplied with the SIM card. The code is required when you want to change a disabled PIN code. If you enter an incorrect PUK code ten times in succession, the SIM card is rejected and you cannot make or receive any calls, except emergency calls. When the SIM is rejected, you will need a new SIM card. You cannot change the PUK code. If you lose the code, contact your system service provider.

PUK2 Code

The PUK2 code is supplied with some SIM cards. The code is required when you want to change a disabled PIN2 code. If you enter an incorrect PUK2 code ten times in succession, you will not be able to access the functions which require the PIN2 code. To use these functions again, you will need to obtain a new SIM card from your system service provider.You cannot change the PUK2 code.

Restriction password

The restriction password is a 4-digit code needed to change fax and voice call restrictions, see 'Restrict voice calls' on page 106. The password is not located in your communicator or SIM card, but in the network. You obtain the password from your system service provider when you subscribe to the call restriction service.

Roaming agreement

An agreement between two or more system service providers to enable the users of one service provider to use the services of other service providers.

Secure Socket Layer (SSL)

A security protocol that prevents eavesdropping, tampering, or message forgery over the Internet. Documents using SSL are identified with the prefix HTTPS.

SIM (Subscriber Identity Module) card

The SIM card contains all the information the cellular network needs to identify the network user. The SIM card also contains security-related information.

The SIM card identifies your phone number to your service provider. When you subscribe for service, your service provider gives you a SIM card and phone number.

If you have several GSM 1900 phones, you can move the phone number from one phone to another by moving the SIM card to the phone you wish to use.

Simple Mail Transport Protocol (SMTP)

An Internet protocol governing the transfer of electronic mail.

TCP port

Identifies the data port of the destination computer.

TCP/IP (Transmission Control Protocol/Internet Protocol)

A protocol that governs data communication in the Internet and in the TCP/IP networks.

Template

In word processing a template or a style sheet is a file or form that defines the layout of a document. A template may determine parameters like the page size, margins, and fonts. You can use the same style sheet for many documents. For example, you can define one style sheet for personal letters, another for official letters, and a third for reports.

Touch Tones

The system used by touch-tone telephones. Touch tones assign a specific frequency, or tone, to each key so that it can easily be identified by a microprocessor. Touch tones allow you to communicate with voice mailboxes, computerized telephony systems, etc.

Transport Layer Security

A security protocol similar to SSL offering end-to-end encrypted and authenticated connections. The server to which the connection is established is authenticated by the use of certificates. Data transfers are secured with encryption algorithms. The Nokia 9290 Communicator supports TLS version 1. See also Secure Socket Layer (SSL).

URL (Uniform Resource Locator)

Link information required by the WWW to connect to a given WWW host computer. The URL usually starts with http://. For example, the Nokia Wireless Data Forum home page can be found at http://www.forum.nokia.com. URLs are often referred to with phrases like "Home page location," "Site location," "can be found at..."

Voice Mailbox

A voice mailbox is a system service or a personal answering machine where people can leave you voice messages.

WAP

Wireless Application Protocol. The transport protocol for WAP services, used by the WAP browser.

WAP access point

An extension to an Internet access point (see: IAP), which provides additional information that the WAP browser needs in order to be able to connect to a WAP service.

Appendix A
Message from the CTIA (Cellular Telecommunications & Internet Association) to all users of mobile phones.

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Phone: (202) 785-0081

Safety is the most important call you will ever make.

A Guide to Safe and Responsible Wireless Phone Use

Tens of millions of people in the U.S. today take advantage of the unique combination of convenience, safety and value delivered by the wireless telephone. Quite simply, the wireless phone gives people the powerful ability to communicate by voice--almost anywhere, anytime--with the boss, with a client, with the kids, with emergency personnel or even with the police. Each year, Americans make billions of calls from their wireless phones, and the numbers are rapidly growing.

But an important responsibility accompanies those benefits, one that every wireless phone user must uphold. When driving a car, driving is your first responsibility. A wireless phone can be an invaluable tool, but good judgment must be exercised at all times while driving a motor vehicle--whether on the phone or not.

The basic lessons are ones we all learned as teenagers. Driving requires alertness, caution and courtesy. It requires a heavy dose of basic common sense---keep your head up, keep your eyes on the road, check your mirrors frequently and watch out for other drivers. It requires obeying all traffic signs and signals and staying within the speed limit. It means using seatbelts and requiring other passengers to do the same.

But with wireless phone use, driving safely means a little more. This brochure is a call to wireless phone users everywhere to make safety their first priority when behind the wheel of a car. Wireless telecommunications is keeping us in touch, simplifying our lives, protecting us in emergencies and providing opportunities to help others in need.

When it comes to the use of wireless phones, *safety is your most important call*.

Wireless Phone "Safety Tips"

Below are safety tips to follow while driving and using a wireless phone which should be easy to remember.

1 Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of valuable features most phones offer, including automatic redial and memory. Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.

2 When available, use a hands free device. A number of hands free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.

3 Position your wireless phone within easy reach. Make sure you place your wireless phone within easy reach and where you can grab it without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voice mail answer it for you.

4 Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.

5 Do not take notes or look up phone numbers while driving. If you are reading an address book or business card, or writing a "to do" list while driving a car, you are not watching where you are going. It's common sense. Don't get caught in a dangerous situation because you are reading or writing and not paying attention to the road or nearby vehicles.
6 Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan your calls before you begin your trip or attempt to coincide your calls with times you may be stopped at a stop sign, red light or otherwise stationary. But if you need to dial while driving, follow this simple tip--dial only a few numbers, check the road and your mirrors, then continue.
7 Do not engage in stressful or emotional conversations that may be distracting. Stressful or emotional conversations and driving do not mix--they are distracting and even dangerous when you are behind the wheel of a car. Make people you are talking with aware you are driving and if necessary, suspend conversations which have the potential to divert your attention from the road.
8 Use your wireless phone to call for help. Your wireless phone is one of the greatest tools you can own to protect yourself and your family in dangerous situations--with your phone at your side, help is only three numbers away. Dial 9-1-1 or other local emergency number in the case of fire, traffic accident, road hazard or medical emergency. Remember, it is a free call on your wireless phone!
9 Use your wireless phone to help others in emergencies. Your wireless phone provides you a perfect opportunity to be a "Good Samaritan" in your community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 9-1-1 or other local emergency number, as you would want others to do for you.
10 Call roadside assistance or a special wireless non-emergency assistance number when necessary. Certain situations you encounter while driving may require attention, but are not urgent enough to merit a call for emergency services. But you still can use your wireless phone to lend a hand. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured or a vehicle you know to be stolen, call roadside assistance or other special non-emergency wireless number.

Careless, distracted individuals and people driving irresponsibly represent a hazard to everyone on the road. Since 1984, the Cellular Telecommunications Industry Association and the wireless industry have conducted educational outreach to inform wireless phone users of their responsibilities as safe drivers and good citizens. As we approach a new century, more and more of us will take advantage of the benefits of wireless telephones. And, as we take to the roads, we all have a responsibility to drive safely.

The wireless industry reminds you to use your phone safely when driving.
For more information, please call 1-888-901-SAFE.
For updates: http://www.wow-com.com/consumer/issues/driving/articles.cfm?ID=85

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Appendix B
Message from the FDA (U.S. Food and Drug Administration) to all users of mobile phones.

July 18, 2001..... For updates: http://www.fda.gov/cdrh/phones

Consumer Update on Wireless Phones

U.S. Food and Drug Administration

1. Do wireless phones pose a health hazard?

The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that wireless phones are absolutely safe. Wireless phones emit low levels of radiofrequency energy (RF) in the microwave range while being used. They also emit very low levels of RF when in the stand-by mode. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects. Many studies of low level RF exposures have not found any biological effects. Some studies have suggested that some biological effects may occur, but such findings have not been confirmed by additional research. In some cases, other researchers have had difficulty in reproducing those studies, or in determining the reasons for inconsistent results.

2. What is FDA's role concerning the safety of wireless phones?

Under the law, FDA does not review the safety of radiation-emitting consumer products such as wireless phones before they can be sold, as it does with new drugs or medical devices. However, the agency has authority to take action if wireless phones are shown to emit radiofrequency energy (RF) at a level that is hazardous to the user. In such a case, FDA could require the manufacturers of wireless phones to notify users of the health hazard and to repair, replace or recall the phones so that the hazard no longer exists.

Although the existing scientific data do not justify FDA regulatory actions, FDA has urged the wireless phone industry to take a number of steps, including the following:

- Support needed research into possible biological effects of RF of the type emitted by wireless phones;
- Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and
- Cooperate in providing users of wireless phones with the best possible information on possible effects of wireless phone use on human health.

FDA belongs to an interagency working group of the federal agencies that have responsibility for different aspects of RF safety to ensure coordinated efforts at the federal level. The following agencies belong to this working group:

- National Institute for Occupational Safety and Health
- Environmental Protection Agency
- Federal Communications Commission
- Occupational Safety and Health Administration
- National Telecommunications and Information Administration

The National Institutes of Health participates in some interagency working group activities, as well.

FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. FCC relies on FDA and other health agencies for safety questions about wireless phones. FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the subject of the safety questions discussed in this document.

3. What kinds of phones are the subject of this update?

The term wireless phone refers here to hand-held wireless phones with built-in antennas, often called cell mobile or PCS phones. These types of wireless phones can expose the user to measurable radiofrequency energy (RF) because of the short distance between the phone and the user's head. These RF exposures are limited by Federal Communications Commission safety guidelines that were developed with the advice of FDA and other federal health and safety agencies. When the phone is located at greater distances from the user, the exposure to RF is drastically lower because a person's RF exposure decreases rapidly with increasing distance from the source. The so-called cordless phones; which have a base unit connected to the telephone wiring in a house, typically operate at far lower power levels, and thus produce RF exposures far below the FCC safety limits.

4. What are the results of the research done already?

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of radiofrequency energy (RF) exposures characteristic of wireless phones have yielded conflicting results that often cannot be repeated in other laboratories. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in laboratory animals. However, many of the studies that showed increased tumor development used animals that had been genetically engineered or treated with cancer-causing chemicals so as to be pre-disposed to develop cancer in the absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the conditions under which people use wireless phones, so we don't know with certainty what the results of such studies mean for human health.

Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from wireless phone RF exposures. However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

5.What research is needed to decide whether RF exposure from wireless phones poses a health risk?

A combination of laboratory studies and epidemiological studies of people actually using wireless phones would provide some of the data that are needed. Lifetime animal exposure studies could be completed in a few years. However, very large numbers of animals would be needed to provide reliable proof of a cancer promoting effect if one exists. Epidemiological studies can provide data that is directly applicable to human populations, but 10 or more years follow-up may be needed to provide answers about some health effects, such as cancer. This is because the interval between the time of exposure to a cancer-causing agent and the time tumors develop - if they do - may be many, many years. The interpretation of epidemiological studies is hampered by difficulties in measuring actual RF exposure during day-to-day use of wireless phones. Many factors affect this measurement, such as the angle at which the phone is held, or which model of phone is used.

6.What is FDA doing to find out more about the possible health effects of wireless phone RF?

FDA is working with the U.S. National Toxicology Program and with groups of investigators around the world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to radiofrequency energy (RF).

FDA has been a leading participant in the World Health Organization International Electromagnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The Project has also helped develop a series of public information documents on EMF issues.

FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research and Development Agreement (CRADA) to do research on wireless phone safety. FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts to independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA will also include a broad assessment of additional research needs in the context of the latest research developments around the world.

7. How can I find out how much radiofrequency energy exposure I can get by using my wireless phone?

All phones sold in the United States must comply with Federal Communications Commission (FCC) guidelines that limit radiofrequency energy (RF) exposures. FCC established these guidelines in consultation with FDA and the other federal health and safety agencies. The FCC limit for RF exposure from wireless telephones is set at a Specific Absorption Rate (SAR) of 1.6 watts per kilogram (1.6 W/kg). The FCC limit is consistent with the safety standards developed by the Institute of Electrical and Electronic Engineering (IEEE) and the National Council on Radiation Protection and Measurement. The exposure limit takes into consideration the body's ability to remove heat from the tissues that absorb energy from the wireless phone and is set well below levels known to have effects.

Manufacturers of wireless phones must report the RF exposure level for each model of phone to the FCC. The FCC website (http://www.fcc.gov/oet/rfsafety) gives directions for locating the FCC identification number on your phone so you can find your phone's RF exposure level in the online listing.

8. What has FDA done to measure the radiofrequency energy coming from wireless phones?

The Institute of Electrical and Electronic Engineers (IEEE) is developing a technical standard for measuring the radiofrequency energy (RF) exposure from wireless phones and other wireless handsets with the participation and leadership of FDA scientists and engineers. The standard, Recommended Practice for Determining the Spatial-Peak Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques, sets forth the first consistent test methodology for measuring the rate at which RF is deposited in the heads of wireless phone users. The test method uses a tissue-simulating model of the human head. Standardized SAR test methodology is expected to greatly improve the consistency of measurements made at different laboratories on the same phone. SAR is the measurement of the amount of energy absorbed in tissue, either by the whole body or a small part of the body. It is measured in watts/kg (or milliwatts/g) of matter. This measurement is used to determine whether a wireless phone complies with safety guidelines.

9. What steps can I take to reduce my exposure to radiofrequency energy from my wireless phone?

If there is a risk from these products--and at this point we do not know that there is--it is probably very small. But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to radiofrequency energy (RF). Since time is a key factor in how much exposure a person receives, reducing the amount of time spent using a wireless phone will reduce RF exposure.

If you must conduct extended conversations by wireless phone every day, you could place more distance between your body and the source of the RF, since the exposure level drops off dramatically with distance. For example, you could use a headset and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna.

Again, the scientific data do not demonstrate that wireless phones are harmful. But if you are concerned about the RF exposure from these products, you can use measures like those described above to reduce your RF exposure from wireless phone use.

10. What about children using wireless phones?

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to radiofrequency energy (RF), the measures described above would apply to children and teenagers using wireless phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure.Some groups sponsored by other national governments have advised that children be

discouraged from using wireless phones at all. For example, the government in the United Kingdom distributed leaflets containing such a recommendation in December 2000. They noted that no evidence exists that using a wireless phone causes brain tumors or other ill effects. Their recommendation to limit wireless phone use by children was strictly precautionary; it was not based on scientific evidence that any health hazard exists.

11. What about wireless phone interference with medical equipment?

Radiofrequency energy (RF) from wireless phones can interact with some electronic devices. For this reason, FDA helped develop a detailed test method to measure electromagnetic interference (EMI) of implanted cardiac pacemakers and defibrillators from wireless telephones. This test method is now part of a standard sponsored by the Association for the Advancement of Medical instrumentation (AAMI). The final draft, a joint effort by FDA, medical device manufacturers, and many other groups, was completed in late 2000. This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from wireless phone EMI. FDA has tested hearing aids for interference from handheld wireless phones and helped develop a voluntary standard sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and performance requirements for hearing aids and wireless phones so that no interference occurs when a person uses a compatible phone and a accompanied hearing aid at the same time. This standard was approved by the IEEE in 2000.

FDA continues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference be found to occur, FDA will conduct testing to assess the interference and work to resolve the problem.

12. Where can I find additional information?

For additional information, please refer to the following resources:

- FDA web page on wireless phones
  http://www.fda.gov/cdrh/phones/index.html
- Federal Communications Commission (FCC) RF Safety Program
  http://www.fcc.gov/oet/rfsafety
- International Commission on Non-Ionizing Radiation Protection
  http://www.icnirp.de
- World Health Organization (WHO) International EMF Project
  http://www.who.int/emf
- National Radiological Protection Board (UK)
  http://www.nrpb.org.uk/

July 18, 2001For updates: http://www.fda.gov/cdrh/phones

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